

# THE CORRELATION OF STUDENTS' ATTITUDE AND STUDENTS' ENGLISH ACHIEVEMENT AT GRADE VIII SMP NEGERI 9 PADANGSIDIMPUAN 

## A THESIS

# Submitted to State Institute for Islamic Studies Padangsidimpuan as a Partial Fulfillment of the Requirement for Graduate Degree of Islamic Education (S.Pd.I) in English 

Written By:
DESI HARDIANI HARAHAP
Reg. No. 113400006

## ENGLISH EDUCATION DEPARTMENT

## TARBIYAH AND TEACHER TRAINING FACULTY STATE INSTITUTE FOR ISLAMIC STUDIES PADANGSIDIMPUAN



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Assalamu'alaikum Wr. Wb.

After reading, studying and giving advice for necessary revision on thesis belongs to DESI HARDIANI HRP, entitled "The Correlation of Students' Attitude and Students' English Achievement at Grade VIII SMP Negeri 9 Padangsidimpuan",we approved that the thesis has been acceptable to complete the requirement to fulfill for Graduate degree of Islamic Education (S.Pd.I) in English.

Therefore, we hope that the thesis will soon be examined in front of the Thesis Examiner Team of English Department of Tarbiyah and Teacher Training Faculty IAIN Padangsidimpuan. Thank you.

Wassalamu'alaikumWr. Wb.

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|  | Students' English Achievement at Grade VIII |
|  | SMP Negeri 9 Padangsidimpuan |


#### Abstract

This research discussed about the Correlation Students' Attitude and Students’ English Achievement at Grade VIII SMP N 9 Padangsidimpuan. The problems in this research were the internal and external factors, and the students had bad attitude. It was the effect of globalization like the students' don't like English, sour face when study English and students English achievement was low based on the DKN.

The purpose of this research was to prove the correlation of students' attitude and students' English achievement at grade VIII SMP Negeri 9 Padangsidimpuan. So, in this research the researcher proved the attitude and students' English Achievement.

This research was done by using quantitative research. The total of population from this research 240 students grade VIII SMP N 9 Padangsidimpuan. Then, the sample of the research were 50 . It was taken by stratified random sampling. It was taken from $48 \%$ of the population. To get the data the researcher used questionnaire and test, to find out the correlation of students' attitude and students' English achievement at Grade VIII SMP Negeri 9 Padangsidimpuan. To analyze the data, the researcher used Product Moment formula.

Based on the result of the research, researcher showed the description of the data was found that, the result of were $r_{\text {count }}$ was 0.441 , while the value of the $r_{\text {table }}$ in Pearson Product Moment formulated on the degree of freedom df= $\mathrm{N}-2=50-2=$ 48. So, df of 48 on $5 \%$ significant was 0.284 . It showed $r_{\text {count }}$ was higher than $r_{\text {table }}$ on $0.441>0.284$, it was mean that there was correlation of students' attitude and students' English achievement at grade VIII SMP Negeri 9 Padangsidimpuan. It has enough correlation and it was mean that the hypothesis alternative was accepted.


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## CHAPTER I

## INTRODUCTION

## A. Background of the Problem

Expand skill of people relate on their attitude.On limit of each qualification, how far the people do the best of work on life have many variations based on attitude. The people must had the passion, intend for work, and good attitude on life, so that the work can do the best. The passion were work high,intend for work, and good attitude can make the people get the maximal result, otherwise the passion of the result of work low, lazy for work, and bad attitude can get low result. So,the attitude wasvery important on lifefor more attention.

Study was there change of behavior on his/ her self, like cognitive, psicomotor, and afective. Based on theory of behavioristic learning, study was a process change of behavior as caused between interaction, stimulation, and responses. Study was also the effort to create correlation of stimulation and response. So, the behavioristic learning is the process change of behavior on his/her self to act on stimulation and responses on thier activities.

According to Thorndike in Evelina and Hartati Nara states that "belajaradalahasosiasi antara kesan panca indra dengan stimulus untuk bertindak. Dengan kata lain, belajar adalah pembentukan hubungan antara stimulus dan
respons, antara aksi dan reaksi". ${ }^{1}$ Study is processinteraction of stimulation and responses and study can do to try something to act (trial and error).Theory of learning Thordike can say "connectionisme". Based on explantionthe researcher conclude that study was processinteraction to create stimulation and responses as many as.

In educational psychology, the learning process do efficiently and effectively to achieve the best and maximal result. It was one of the objective of the teacher in educational. System of National Education that students was a member of society which effort expand skill by learning process, that availabe on levels and kinds of education. On design of learning, the student according to psychology must give more attention based on situation and condition.

Many researchers had found the factorthatrelated of students' achievement. The factor was method used of the teacher on learning process. Someteachers did not useappropriate method with the topic on learning and teacher have less knowledge about students' attitude. The teacher must use the method appropriately based on topic. The teacher not only teaches students, but also mustpay attention and give motivation for students', that the student like the lesson, follow the lesson well, and understood the topic of lesson. So that the students' got good attitude, good achievement, and got high grade on their leaning process in class.

[^0]From the factors that had mentioned above, the researcher chooses the correlation of students attitude and students' English achievement at junior high school. This title have some backgrounds, they were:

First, last time the researcher pre-observation in SMP Negeri 9 Padangsidimpuan. The researcher had found some problems on English, the problems are many students have bad attitude, it was the effect of globalization. The students had negative attitude on learning English, such as students didn't like English, didn't have passion for studying English,they often don't do the home work or task from teacher, sour face when studying, and some students often absent when studying English in SMP Negeri 9 Padangsidimpuan. ${ }^{2}$ The factors of students' attitude also come from out side of students, social environment, students' motivation, students' interest, family, and friends. So, the researcher wanted to solve it and found solution.

Second,students English achievement based on the result of report and final semester on DKN (Daftar Kumpulan Nilai) the students at grade VIIIin English achievement in SMP N 9 Padangsidimpuan, the result of students based on class are at grade VIII-1 got the result $1=75,11=76-80,11=81-85$, at grade VIII-4 got the result $18=76-80$ and $5=81-85$, at grade VIII- 8 the students got the

[^1]result $11=76-80$ and $11=81-85$, and at grade VIII-9 the students got the result $17=76-80$ and $14=81-85$ the total of studets are $99 .{ }^{3}$

According to Anwar Bey in Mardianto says that "there are many factors that influences the successfulness of the learning, such as healthy, intelligence, talent, students' interest, motivation, students' strategy in learning, and condition family of students" ${ }^{4}$ It means were the internal and external factors in learning. The internal factors is talents, motivation, attitudes, intelligence, and condition family of student. The external factors were friends, family, environment, teacher, and teacher strategy in learning process.

In education, students begin study English on junior high school based on curriculum 2006. So, the researcher chooses the students of junior high school as sample in this reseach. The researcher had done the research " The Correlation of Students' Attitude and Students' English Achievement in SMP Negeri 9 Padangsidimpuan".

## B. Identification of the Problems

Based on the background above, there were discrepancy of variables can influence students' achievement. So, the problem in students' according to this topic were:

[^2]1. Based on the background attitude was the internal factor come from the students' self such as attitude, students didn't like English subject, students didn't have passion for study English,they often didn't do the home work or task from teacher, sour face when studying, and some students often absent when studying English.
2. The external factorson successfulness of the learning English were students' motivation, students' attitude, teacher strategy in learning, students' interest, teacher, friend and environment.

## C. Limitation of the Problems

Based on the identification of the problems above, many factors that influence students' English achievement. The researcher limit this research was the correlation students' attitude and students' English achievement at grade VIII in SMP Negeri 9 Padangsidimpuan 2015 academic year.

## D. Formulation of Problem

The formulation of the problem "how was the correlation of students' attitude and students' English achievement at grade VIII in SMP Negeri 9 Padangsidimpuan?"

## E. The Purpose of Research

The purpose of this research was examine correlation of students' attitude and students' English achievement at grade VIII on SMP N 9 Padangsidimpuan.

## F. Definition of Operational Variables

The terms used at grade VIII SMP Negeri 9 Padangsidimpuan in 2015 in this research as follows:

## 1. Students' Attitude

a. Students

According to Hornby that, "student is a person who is studying at school or college". ${ }^{5}$ Then in Indonesian dictionary, "the student is a learner especilally on the grade of elemantary, junior, and senior high school" ${ }^{6}$

So, based on defenitions above, the writer concludes that the students was a person is on grade of elemantary, junior, and senior high school not only on formal educational institution but also on the informal educational. The students in this research was a person who studies at the VIII grade in State Junior High School 9 Padangsidimpuan.

## b. Attitude

Bruno in Muhibbin Syah says that"an attitude is tendency which relative decided toreaction with good or bad to people or thing", ${ }^{7}$ The principle anattitudecan we said something students' tendency to reaction with certain way.

[^3]The other word, Krech and Crutchfield in Norbert Schwarz and Gerd Bohner states that "an attitude can be defined as an enduring organization of motivational, emotional, perceptual, andcognitive processes with respect to some aspects of the individual world". ${ }^{8}$ It is emphasized the enduring nature of attitudes and their close relationship to individuals' behavior.

So, students' attitude is tendency of students to reaction or responses something on learning process. The indicator of attitude were an affective, cognitive, and psychomotoric. The affective that mean how the students' attitude respon English on learning process, while the cognitive was the knowledge of students about English and students' achievement on English, and the psychomotoricthat the sudents response on English learning process. It means the students dothe task and the other activities in learning process.

## 2. English Achievement

Achievement was the skill got from the test and ability students to answer the test about the topics on English learning based on syllabus. Learning process can sign with the change of all attitude, such as aspect cognitive, affective and also psychomotoric.

The students' achievement could happen while process of change from simple to complete, like to solve the problem. Students' English

[^4]achievement the effect of some factors, they were internal and external factors. Besides that the achievement of influence that are motivation, intelligence and attitude.

Students' English achievement on English learning means that the results of learning process by students in doing activities, ability to answer the test about topics on English learning based on syllabus at VII grade semesters I and II.

## G. Outline of the Thesis

The systematic of this research is divided into five chapters. each chapter consists of many sub chapters with detail as follow: in chapter one, it is consist of background of the problem, identification of the problem, limitation of the problem, formulation of the problem, purpose of research, definition of operational variable, and outline of the thesis.

In chapter two, it is consist of the theoretical description, which consists of sub chapters such as theoretical consists of description of attitude, and description English achievement. then, review of related findings, conceptual of framework, paradigm of the research and hypothesis.

In chapter three, it is consist of research methodology which consist of time and place of the research, research design, population and sample, instrument of collecting data, validity and reliability instrument, the result of tryout validity and reliability instrument, the techniques of data analysis.

In chapter four, it is the result of the research talking about the analysis of data. this chapter four, it is consist of description of data, hypothesis testing, discussion and the threats of research.

Finally, in chapter five consist of conclusion that is giving conclusion about the result of research and suggestion that given suggestion to students and teacher by researcher.

## CHAPTER II

## THEORITICAL DESCRIPTION

## A. Theoretical Description

## 1. Attitude

## a. Definition ofAttitude

An attitude was the important problem in psychology. Attitude was readiness or predisposition a people to response something or subject based on insituation. While Montano and Kasprzykin Mohamad Jafre Zinol Abidinstates that:
"Attitude is determined by the individual's beliefs about outcomes or attributes of performing the behavior (behavioral beliefs), weighted by evaluations of those outcomes or attributes. Thus, a person who holds strong beliefs that positively valued outcomes will result from performing the behavior will have a positive attitude toward the behavior. Conversely, a person who holds strong beliefs that negatively valued outcomes will result from the behavior will have a negative attitude." ${ }^{11}$

Many experts give the definition of attitude. Cardnon says in Djaalis' book, " an attitude entails an existing predisposition to response to social object which, in interaction to response to social object which, in interaction with situational and other dispositional variables, guides and directs the overt behavoir of the induvidual." ${ }^{2}$

According to Allport in Jeffrey Pickens' book that "an attitude as a mental or neural state of readiness, organized through experience, exerting a directive or dynamic influence on the individual's response to all objects and situations to which it is related". ${ }^{3}$ Brown and Holtzman develop concept an attitude on learning with two components,Teacher Approval (TA) and Educational Acceptance (EA). Teacher

[^5]approval relationship with view of student to teachers; behavior of them in class and style of teaching.Then educational acceptance contains acceptance and refusalof student for the objective will to achieve; topic which made, practice, task, and the rule on school. ${ }^{4}$

So, the researcher conclude an attitude was tendency and readiness on individual about feelings, think, emotional, and individuals' behavior to response on interaction of relationship on like and avoid to something or object with feelings then create based experience.

According to, Heri Porwanto there are characters of attitude:

1) An attitude not bring when was born, but create and learn in long of development that correlate with object. This trait to different with character of biogenis motif like, hungry, thirsty, and needed to rest.
2) The trait can change because it can learn and change base on situation and conditions that easy individual trait.
3) An attitude not existing, but have correlate with an object. It is can create, learn, and change base on an object which can formulation clearly.
4) Object of an attitude is something item certain but it also collection of items.
5) An attitude have aspects of motivation and aspects of sense, and trait nature to different character, skills or knowledge who have people. ${ }^{5}$

## b. Components of Attitude

Attitude aspect consists of three components that available inlearning English.
These three attutidinal aspects are based on the threetheoritical approaches of behaviorism, cognitivism, and human humanismrespectively. ${ }^{6}$ It means that in attitude concept of language learning thereare three component like behavioral, cognitive and afective or emotional.

[^6]
## 1) Behavioral Component

Behavioral aspect of attitude tell about respons of someone to theobject in particular situation. Kara stated:
"Positive attitude lead to the exhibition of positive behaviors toward courses of study, with participants absorbing him selves in courses and striving to learn more, such students are also observed to be more eager to solveproblems, to acquire the information and skills useful fordaily life and to engage themselves emotionally". ${ }^{7}$

The positive attitude on leaning will make the result high on learning process. The positive attitude on leaning have relationship with interest and motivation. Students' attitude on learning that positive will active on learning process then got the best result. So, if learners had positive attitude automatically, they wanted tolearn more and found the information to increse their skill.

Psikomotor or behavioral domain had the correlation of domain with skill or ability to act after a learner receiving experience of study.Psikomotor domain also correlated with achievement, it was to achieve skill manipulation involves muscle and phsycal. Psikomotor contain six levels, they are: reflex response, basic fundamental movements, psycal abilities, perceptual obilities, skilled movements, nice and creactive responds (non-discursive communication).

1) Reflex response is the basic of all behaviors, responds to stimulus without aware.
2) Basicfundamental movementsthe respond appear without exercise but can refine with practice respond in type and guess.
3) Physical abilities the respond rise because helped of perceptual abilities.
4) Physical abilitiesthe respond more efficient, develop with understanding and study.
5) Skilled movement the responds can to control in level of respond, skilled, deft, adroit, do the difficult act and complex.

[^7]6) Nice and creactive responds to communicate the feeling by responds aesthetic s and active. ${ }^{8}$

## 2) Cognitive Component

Cognitive aspect of attitude describes about beliefs of the learner toreceive knowledge and understanding in the learning process. The cognitive attitude has four steps. There are connecting the previous knowledge and the new one creating new knowledge, checking new knowledge and applying the new knowledge in many situation.

The conclusion, the cognitive aspect that ones perception or concept about an object. The students believe that by enjoying the English taught, automatically it will increase their skills.

According to Benyamin S.Bloom stated of "taxonomi" for cognitive component. Taxonomi is the method for make the sequence of thought from base stage to more high activity of mental, six stages:

1) Knowledge is skills for memorizing, remembering, or repeating the information had given.
2) Comprehension is skills for interpretation or repeat the information by using own language.
3) Application is skills for using information, theory, and on new situation
4) Analysis is skills for disentangle of complex thought, and about the parts with it's correlation.
5) Synthesis is skills for collecting the same component use to create a pattern of new thought.
6) Evaluation is skills for make of thought based on criteria has decided. ${ }^{9}$

## 3) Affective or Emotional Component

Attitude can help learners to express their emotional in situation, and then learners can express like or dislike about the object. In otherwords, it is about feelings and emotion. Feng and Chen stated:"learning process is an emotional

[^8]process. It is affected by different emotional factors. The teacher and his students engage in variousemotional activities in it and varied fruits of emotion are yield". ${ }^{10}$

In other words, affective component is one of feeling for an object and emotions of learners influence their attitude on learning process.

So, positive attitude will help someone to increasing the object. Otherwise, the negative attitude means that the way to avoid, distroy, and give disadvantages to the object.An attitude includes three components: an affect (a feeling), cognition (a thought or belief), and behavioral (an action).

Affective domain is domain correlation with attitude and value. Affective domain contain include character of behavior such feeling, interest, attitude, emotion, and value. Some of experts says that attitude of a people can prediction of change of attitude, if a people have power of high cognitive level. The characteristic of affective achievement will appear in the learner on behavioral.Affective domain more detail on five levels, they are: receiving, responding, valuing, organization, and characterization by value or clue complex, the explanation in follow:

1) Receiving or attending is the sensitivity of a people on receiving stimulation from beyond come to herlhis self in form problem, situation, an tendency, like consciousness and wish for receiving stimulation, controlling, and selecting the tendencies or stimulation come from out area. Receiving and attending often give definition as want for attention a activity or object. In this level the learner building so that they are ready to receive the value has tough for them.
2) Responding contain meaning "active of participation ". so, skill of responding is the skill had by a people for participation his/her self active on certain phenomenon and make reaction. This level more high from receiving.

[^9]3) Valuing is give the value or appreciation to a activity or object, so that if the activity can not done, felt would brought regret. Valuing is affective level more high from receiving and responding. In learning process, the learner not only receiving the value has been tough but they have the skill to valuing concept or phenomenon, good or bad.
4) Organization is unite the different of value that creation new value universal bring general renovation. Organization form develop from value to system organization include a value correlate another value.
5) Characterization by value or clue complex mean the combination all system value has been had by a people the influence individualization and her/his behavior. Process internalization the value highest on hierarchy of value on system and influence his/her emotion. The value planted consistentlythe affective is the level highest, because piritual attitude of learner had very wise. ${ }^{11}$

So, in this level have system of value with control of behavior for long time, so create the characteristic "model of life" his/her permanent behavior, consistent, and can prediction.

The Indicators of Attitude


The conceptualization of attitude is the tripartite modelEagly \& Chaiken, the tripartite model, an attitude is comprised of three correlated, but distinct components: affect(feelings), cognition (beliefs), and behavior (actions). Affective measures of attitude include self-report measures of feelings about attitude objects and physiological measures such as blood pressure and heart rate. Cognitive measures may include beliefs about attitude objects and judged evaluative favorability toward

[^10]attitude objects. Behavioral indices typically involve self-report measures of past behavior, and behavioral intentions. ${ }^{13}$

So, the tripartite models of components attitude is have relationship. The affective component is to measure the feeling about something or an abject, for example like, don't like, happy and sad. While the cognitive is to measure the perceptions about an object and students' beliefs to receive the knowledge and understanding in the learning process. Then, the behavioral is to know the students' response and students' activity to do something.

## c. Measuring of Attitude

Attitude scales determine what an individual believes, perceives or feels about self, a variety of activities, institutions, and situations. A Likert scales asks participants to respond to a series of statements. Each response is associated with a point value and an individual's score is determined by summing the point values of each statement. ${ }^{14}$ There are two statements, positive and negative statement. The positive statement is called favorable, while the negative statement is called unfavorable.

The indicators of attitude were behavioral, cognitive, and affective. The behavioral attitude explain about respons to an object and the students' activity to do something, the cognitive was students' perception about object or something and students' belief to understand knowledge on learning process, and an affective about feeling of students and expressing like or dislike about something. The researcher

[^11]measure of attitude by using questionnaire to know the students' attitude on students' English achievement. The researcher made the statement of questionnaires from behavioral, cognitive, and affective of measuring of attitude.

## d. Correlation Componentof Attitude with Achievement

One of the purpose national educationbuilt the skill critical thought, logical, systematic, objectively, honest, and dicipline on solve the problem which need for life of society. The students' attitude influence of parents and peers' attitude contact with people who were different in any number of ways and interacting affective factors in human experiences. An attitude had three components, they werebehavoiral, cognitive, and affective component.

The behavioral component of an attitudeinvolved the person's overt behavior directed toward asituation, an object, or person. Ittold about response the learner got the knowledge and understanding the topic in learning process. The students attitude could influence students' achievement.

In cognitive components of attitude explained about the way of someone got knowledge in learning process. The students perception to lesson had influence to thier attitude. The students believe or perception that by enjoying the lesson, automatically it would improve their skill orability and students achievement.

Affective component was one of feeling and expressio for an object. The learners could feeling like or dislike the lesson or something. The learner like the lesson would made enjoying and motivating to improve skills and students achievement. The teacher must given thepositive examples attitude to students.

So, components of attitude had correlate with students achievement. The effort to develop knowledge and technology, English was a important learning on system national education to use on learning process. There three components of attitude very important in education. The learner it was clear that affective and cognitive components wouldalso be followed by the positive behavioral component. The students' attitude of learning an object was perception whichfollowed by a tendency to an effort, as a their attitude of learning the object itself. The students enjoy follow the learning process, so the students achievement would improve in English aswell as possible.

## e. Correlation of Attitude with English

According to Dornyei in ShrutiAgrawal and Ram Krishan Thakurstatesthat"attitude is as important as language aptitude for predicting the language achievement; he also confirms that positive attitudes towards the learning situation have consistently been associated with language achievement". ${ }^{15}$ The attitude will influence successfulness in learning English.

According to Gardner in Shruti Agrawal and Ram Krishan Thakur states that"positive attitudes towards the target language and its people and culture lead to better achievement in language learning". ${ }^{16} \mathrm{~A}$ student who does not like the native speakers of English or views his own culture superior to the English speaking culture, can walk into a foreign language classroom and quickly generalize his dislikes. He will dislike school, teacher, book, and homework. So, the students don't like English.

[^12]
## 2. Students' English Achievement

## a. Defenition of Achievement

According to Hornby that, "achievement is gain or reach something by effort and get something done". ${ }^{17}$ Achievement was a skill or ability. So, achievement was ability and the result from something that had done.

According to Nana Sudjana, "achievement is the result of activites the someone and assessment or effort which have been by expressed something in the form of letter or number and can express reached result of someone activities". ${ }^{18}$

Students' English achievement in learning means that the results in learning process by students in doing activities like exercices and test. In this research, learning achievement was measurement of achievement in mastering English ability. In English there were four skills, they were receptive skills (listening and reading) and productive skills (speaking and writing).

## b. The Skills of English Achievement

English achievement reached of someone and assessment from activities of students in English achievement. According to curriculum of English learning many subjects or materials are taught in English learning. Basically, there are four skills in English learning, they are listening, speaking, reading and writing.

The skills of English learning based on syllabus at grade VII semesters I and II on KTSP curriculum on 2014/2015 academic year:

English achievement is ability to answer the test and the result of students activity have done on learning process. According to sillabus of English learning

[^13]there are many materials will teach the teacher in learning process. There are four skills in English, they are listening, speaking, reading, and writing.

1) Listening

Listening is to pay attention to someone or something in order to hear what is being said, sung, played. ${ }^{19}$ Listening was traditionally seen as a passive process by wich the listener receives in formation sent by speaker.

The materials of listening are responding for the expressions for greeting to someone, order and prohibition, expressions for asking and giving, thank you, forgiveness, and respectful, instruction, list of things (shopping list), congratulation, and announcement, instruction, and an nouncement, request and give service, thing, fact, requesting, giving opinion; feel of like and dislike; asking clarification respond with interpersonal. Short functional text are, instruction, list of thing, annoucement, and congratulation.

Then the basid competence are responding the meaning on idea in oral short functional text very simple, accurately, fluent, and can receive for intection with around area.
2) Speaking

Speaking is a skill in language to comunicate wirh the people to givw some information or ideas. According to Brown define "speaking is as a productive skill that can be directly and empirically observed". ${ }^{20}$ It can be

[^14]conclude taht speaking is a productive skill to communicate the speech sound for expressing and conveying a messages, ideas, opnions, and information.

The material in speaking skills based on syllabus are expressing the speech act such: greeting to someone has know and yet; introduce self or another people; order and prohibition, asking and answering: asking and giving information say thank you, forgive, responding resfectpul, giving instruction, list of thing, congratulation, and an announcement.

To increase the students achievement there is the basic competence in based on syllabus; expressing the meaning on interpersonal and transactional conversation by using simple accurately, fluent, and an receive with around area to involve speech act: greeting to someone have know or yet, introduce self or another people; order, prohibition, asking and giving information; say thank you, forgive and respectful. Expression the meaning of idea on oral short functional text very simple, accurately, fluently and can receive for intercation with around area.

Last time the researcher pre-observation in SMP Negeri 9 Padangsidimpuan. The researher interview the English teacher about students speaking at grade VII. He said many students can not comunication using English. They don't self confidence to practice thier English skill. So, the studesnts skill on speaking must to increase. ${ }^{21}$

[^15]
## 3) Reading

According to Hodgson, "reading is the process that has done and it is used by the readers to get the information". ${ }^{22}$ Reading is a means of a language acquisition, of communication, and sharing information and ideas. The people do not know anything about something happens without reading. Reading also needed channel to obtain communication with the global community. In learning materials reading students SMP Negeri 9 Padangsidimpuan at grade VII the students can reading when the teacher command for reading the text and the students can understandung the text.

Based on curriculum/syllabus the material on reading skill are instruction, list of thing, greeting card, and an announcement, Instruction, list of thing, greeting card, an announcement, descriptive, and procedure text.

While the basic competence of reading skill responding the meaning on written short functional text very simple, accurately, fluent, and can receive which related with near area and read aloud word, phrase, and sentences with pronounciation, stress, and intonation can receive with related with around area.

The students achivement is good based the interview with a teacher English. The student prefer reading than other writing, speaking, and listening of skills in English. ${ }^{23}$

[^16]4) Writing

David Nunan says, that writing is clearly complex process, and component writing is frequently accepted as being the last language skill to be acquired. ${ }^{24}$ The other word writing is the mental work of expressing ideas, opinions, thinking about how express them and organizing them into paragraphs or statements that will be clear to be a reader. Writing is one of the skill in English learning.

There are learning materials on writing skill based on the syllabus, they are write short functional text, announcement, shoping list, instruction, desriptive and procedure text. Then basic competences are expression meaning on written short functional text very simple and using many kinds of written langguage and expressing the step of rhetoric on writen short functional text.

Based on interview a English teacher many students can not write paragraph in English. They are can not arrange the words based the form sentences in English. ${ }^{25}$

## c. The Factors of Influence English Achievement

According to Muhibbin Syah that, success or failure of someone in learning to be caused by some factors influence attainment of result learning. There are some factors influence achievement learn the on students.

1) Internal factors is the factors that come from students' selves.
a) Physical factors; bodies' tonus is the equipment of parts of body, eyes, and ears.
b) Psychological factors

[^17](1) Intellegence is phsyco-phsyic ability to adapt with the environment rightly.
(2) Attitude is response tendency relatively to people or things positively or negatively.
(3) Intereset is aspired to something.
(4) Talent is someones' potency to reach the successful in the future.
(5) Motivation is internal situation that motivate to do something.
2) Externals Factors is the factor that come from out side of students.
a) Social environment is social condition of the students such as: family, teacher. Society, and friends.
b) Non social environment is the condition about students' environment such as school, house, tools, and nature. ${ }^{26}$

Based on explanation above the researcher conclude that the factors of students' achievement were internal and external factors. The internal factor came from students' like physical and phsychological factors. The external factors came from outside students like environment and human factors.

## B. Review of Related Finding

There were some review of related findings towards thesis follows:

1. Azan Zuhri did research in this thesis: The Correlation Between Learning Discipline and Students' Achievement in Learning English of VIII Grade Students SMP Negeri 1 Batang Toru. Based on the result of this thesis, he conclude that there is a significant

[^18]correlation learning discipline and students' achievement grade VIII at SMP Negeri 1 Batng Toru. ${ }^{27}$
2. Zahrona did research in this thesis: The Correlation between Learning Motivation and English Achievement(A Study to the Grade VIII At SMP Negeri 3 Siabu). She concludes the result of the thesis there is significant correlation between and English achievement. ${ }^{28}$
3. Rita Juliana Ritongadid research in this thesis: The Correlation between Students' Motivation and Speaking Ability at Grade VII MTs N 2 Padangsidimpuan. She concludes that the result of her thesis there is any significantly correlation between students' motivation and speaking ability at grade VII MTs N 2 Padangsidmpuan. ${ }^{29}$

Based on this research the researcher conclude there was correlation between students' attitude and students' English achievement. What extent the correlation between both of variables.

## C. Conceptual Framework

An attitude was definite how the student to reaction on situation in environment. An attitude correlated with an object, an object follow by feeling could be positive or negative. The students' attitudewas the students readiness to response something on learning process.

Students' English Achievement was the result of students activity to answer the test based on the materials on English learning. The teacher had manyimportant roles got

[^19]successfullness of students got the knowledge, information, skill on stdudents' achievement on English learning.

Attitude was very importan for student on English learning. It was one of the factor influence students' achievement. So, the teacher must be pay attention of students' attitude in school. The goals of teaching learning must be do the best with desicion that had decided in the school to reach good students' achievement.

Based on explanation above it could be assume that the students' attitude had correlation with students' achievement in English learning.

## D. Paradigm of Research

L. R. Gray said that, "correlation research attempted wheter, and to what degree a correlation exist between to or more variables. The correlation is quantitave measure of the degree of correspondence between two or more variables". ${ }^{30}$ So, the correlation was the correlational between two or more variables. Correlation also discrepancy must happen with the fact.

The purpose of correlational research was to determine the relations among two or more variables. Data were gathered from multiple variables and correlational statistical techniques were then applied to the data.


The ilustration the both of variables, students' attitude and students' English achievemet.

[^20]Based on ilustration above the researcher concluded that correlation is to determine the relationship between two or more variables. The researcher conclude that the students' attitude had the significant correlation of students' English achievement.

## E. Hypothesis

Based on the formulation in the researchthe hyphotesis, there was correlation of students' attitude and students' English achievement at grade VIII on SMP Negeri 9 Padangsidimpuan.

## CHAPTER III

## RESEARCH METHODOLOGY

## A. Location and Time of Research

The researcherconducted at SMP N 9Padangsidimpuan that located on Jl. Merdeka Km 4.5 Padangsidimpuan. The subject of this research was the second grade of students in SMPNegeri9 Padangsidimpuan. The schedule of this research was done from April 2015 up to November 2015.

## B. The Research Design

The kind of this researchwas quantitative research with descriptive method. L. R Gay said, "Quantitative method of researcharebased on the collection and analysis of numerical data, itis usually obtained from questionnaires, tests, checklist and other formal paper and pencil instruments". ${ }^{1}$ The quantitaive research by using statistical formgot the result of the data.

According to Gay, "the descriptive method is useful for investigating a variety of educational problems and issues. Typical descriptive studies are concern with the assesment of attitudes, opinions, preferences demographics, practices, and procedures". ${ }^{2}$ The descriptive method was use to analyze the students' attitudent at grade VIII SMP N 9 Padangsidimpuan.

[^21]
## C. Population and Sample

## 1. Population

Gray said that, "the population is the group of interest to the researcher would like the result of the study to be generalizable". ${ }^{3}$ The degree to which represents the population is the degree to which results for one are applicable to the other.

Based on explanation above, the population taken from at grade studentsVIII-1, VIII-2, VIII-3, VIII-4, VIII-5, VIII-6, VIII-7, VIII-8, and VIII-9, AND VIII-10 in SMP N 9 Padangsidimpuan.So, the researcher taken the class as population.There were 240 students in at VIII grade, it could see from the table follow:

Tabel I
The population of research

| No. | Class | Gender |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | M | F | Total |
| 1 | VIII-1 | 10 | 13 | 23 |
| 2. | VIII-2 | 10 | 12 | 22 |
| 3. | VIII-3 | 12 | 13 | 25 |
| 4. | VIII-4 | 10 | 13 | 23 |
| 5. | VIII-5 | 9 | 12 | 21 |
| 6. | VIII-6 | 7 | 15 | 22 |
| 7. | VIII-7 | 12 | 13 | 25 |
| 8. | VIII-8 | 10 | 12 | 22 |
| 9. | VIII-9 | 15 | 17 | 32 |
| 10 | VIII-10 | 13 | 12 | 25 |
| Total of Population |  |  |  | $\mathbf{2 4 0}$ |

${ }^{3}$ Ibid., p. 122

## 2. Sample

According to Gay, "sample is comprises the individuals, items or events selected from a larger group referred to as a population and the purpose to gain information about the population using sample." ${ }^{4}$ In another word sample was part of population.

In this research, the researcher used stratified sampling as the sampling strategies.Gaysaid that, "stratified random sampling is the process of selecting a sample in such a way that identified subgroups in the population are represented in same proportion that they exist in the population". ${ }^{5}$

The researcher takes four classes. The researcher takes VIII-1 consists of 23 students, VIII-4 consists 23 students, VIII-8 consists 22 students and VIII-9 consists of 32 students. Therefore, total samples are 100 students. Before use stratified random sampling, the writer uses normality and homogeneity test, they are: ${ }^{6}$

## a. Normality test

The function of normality test is to know whether the data of research is normal or not. The research is normal or not. The

[^22]researcher uses normality test with using Chi-Quadrate formula, as follow: ${ }^{7}$
$$
x^{2}=\sum\left(\frac{f_{o}-f_{h}}{f_{h}}\right)
$$

Where:
$x^{2}=$ Chi-Quadrate
$\mathrm{f}_{\mathrm{o}}=$ Frequency is gotten from the sample/result of observation (questioner).
$f_{h}=$ Frequency is gotten from the sample as image from frequency is hoped from the population

To calculate the result of Chi-Quadrate, it is used significant level $5 \%(0,05)$ and degree of freedom as big as total of frequency is lessened $3(\mathrm{dk}=\mathrm{k}-3)$. If result $\mathrm{x}^{2}$ count $<\mathrm{x}^{2}$ table. So, it can be concluded that data is distributed normal.

## b. Homogeneity test

Homogeneity test is used to know whether two or more classes have the same variant or not. If both of classes are same, it is can be called homogeneous. Homogeneity is the similarity of variance of the group will be compared. So, the function of homogeneity

[^23]test is to find out whether the data homogeny or not. It use Harley test, as follow: ${ }^{8}$
$$
\mathrm{F}=\frac{\text { The biggest variant }}{\text { The smallest variant }}
$$

Hypotheses is accepted if $F_{(\text {count })} \leq F_{(\text {table })}$
Hypotheses is rejected if $F_{(\text {count })} \geq F_{(\text {table })}$

Hypothesis is rejected if $\mathrm{F}_{\text {count }} \leq \mathrm{F}$ table, while if $\mathrm{F}_{\text {count }}>\mathrm{F}_{\text {table }}$ hypothesis is accepted. It determined with significant level 5\% ( 0,05 ) and dk numerator was $\left(\mathrm{n}_{1}-1\right)$, while dk detominators is $\left(\mathrm{n}_{2}-1\right)$.

So, the researcher identify the sample based on students' English achievement on the table as follow:

Tabel II
Sample of research

| No. | Class | Gender |  |  | English Achievement |  | Sample |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | $\mathbf{M}$ | $\mathbf{F}$ | Total | Interval <br> of value | $\mathbf{M}$ | $\mathbf{F}$ | $\mathbf{M}$ | $\mathbf{F}$ |
| 1. |  | 10 | 13 | 23 | $76-85$ | 9 | 13 | 5 | 7 |
|  |  |  |  |  | $66-75$ | 1 | 0 | 0 | 0 |
| $56-65$ | - | - | - | - |  |  |  |  |  |
| 2. | VIII-4 | 10 | 13 | 23 | $76-85$ | 10 | 13 | 5 | 7 |
|  |  |  |  |  | $66-75$ | - | - | - | - |
|  |  |  |  | $56-65$ | - | - | - | - |  |
| 3. | VIII-8 | 10 | 12 | 22 | $76-85$ | 10 | 12 | 5 | 6 |
|  |  |  |  |  | $66-75$ | - | - | - | - |
| 4. | VIII-9 | 15 | 17 | 32 | $76-85$ | - | - | - | - |

[^24]Based on the tabel above the researcher that used stratified random sampling. The researcher take $48 \%$ from population. The researcher got the sample based stratified students' English achievement at grade VIII-1, VIII4, VIII-8, and VIII-9. So, the total of sample in this research are 50.The researcher chooses this class because this class had complete data of stratify value students' English achievement.

## D. Instruments of Collecting Data

In collecting the data of this research, the researcher used two instruments. They were questionnaires and test.

## 1. Questionnaire

Gay said that, "the questionnaire is use to get information about the students' attitude. The questionnaire will be attractive brief and essay test to fill out. Many types of items are commonly used in questionnaires". ${ }^{9}$ The researcher used Likert Scale in this research. The researcher made the indicators of attitude on the table follow:

Tabel III
Indicators of the Students' Attitude (Variable X)

| No. | Indicators | Sub Indicators | Number <br> of items | Total |
| :--- | :--- | :--- | :--- | :--- |
| 1. | The <br> behavioral | 1. The students <br> object in respond the <br> situation. | $1,4,5,9$, <br> particular | $11,12,14$, <br> $15,19$. |

[^25]|  |  | 2. The students' activity to do something. | $\begin{aligned} & 2,3,6,7, \\ & 8,10,13 \\ & 16,17,18 \end{aligned}$ | 10 |
| :---: | :---: | :---: | :---: | :---: |
| 2. | The cognitive | 1. The students' perception or concept about an object | $\begin{aligned} & 20,21,24, \\ & 25,26,29, \\ & 31,34 . \\ & \hline \end{aligned}$ | 8 |
|  |  | 2. The students' beliefs to receive knowledge and understanding in the learning process | $\begin{aligned} & 22,23,27, \\ & 28,30,32, \\ & 33 \end{aligned}$ | 7 |
| 3. | The affective | 1. The students feeling for an object | $\begin{aligned} & 37,39,41, \\ & 43,44,45, \\ & 46,47, \end{aligned}$ | 8 |
|  |  | 2. The students express like or dislike about the object. | $\begin{aligned} & 35,36,38, \\ & 40,42,48, \\ & 49,50 \end{aligned}$ | 8 |
|  | Total |  |  | 50 |

The researcher used questionnaire to collecting the data.The researcher gave the questionnaires to students, then analyze the result of the questionnaire has fill of students.

## 2. Test

The researcher used test to know students' English achievement.
Brown said, "testa method of measuring a person's ability; knowledge or performance in a given domain". ${ }^{10}$ Test was the way to know the knowledge and students ability in English.Test couldevaluate the students' achievement in learning process.

[^26]English achievement was ability to answer the test and the result of students activity had done on learning process. Based on sillabus of English learning there were many materials will teach the teacher in learning process. There were four skills in English, they were listening, speaking, reading, and writing.The researcher make the test just on three skills speaking, reading, and writing, because the listening need more understanding and long time to test it.

## a. Speaking

Speaking was a skill in language to comunicate wirh the people to give some information or ideas. According to Brown (2004:140) define "speaking is as a productive skill that can be directly and empirically observed". ${ }^{11}$ It could be concluded that speaking was a productive skill to communicate the speech sound for expressing and conveying a messages, ideas, opnions, and information.

## b. Reading

According to Hodgson, "reading is the process that has done and it is used by the readers to get the information". ${ }^{12}$ Reading was a means of a language acquisition, of communication, and sharing information and ideas. The people did not know anything about

[^27]something happens without reading. Reading also needed channel to obtain communication with the global community.

## c. Writing

David Nunan said that, "writing is clearly complex process, and component writing is frequently accepted as being the last language skill to be acquired". ${ }^{13}$ The other word writing was the mental work of expressing ideas, opinions, thinking about how express them and organizing them into paragraphs or statements that will be clear to be a reader. Writing was one of the skill in English learning.

The researcher made the test in form multiple choice based on indicatoron sillabus at grade VII semester I and II for Junior High School. The materials of test on the table as follow:

Table IV
The try-out of test validity (Y)

| No. | English <br> skill | Indicator | Number of item | Total |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{1 .}$ | Speaking | 1. Greeting | $1,2,3,5,7,8$ | 6 |
|  | 2. Prohibition | $9,10,12,13$ | 4 |  |
|  |  | 3. Instruction | $4,11,14,15,16$, <br> 17 | 6 |
|  | 4. Asking and <br> giving <br> information, <br> fact, opinion | $5,18,19,20,21$, <br> 30,34 | 7 |  |
|  | 5. Thank you, <br> forgive and <br> respectful | $22,23,24,25,31$ | 5 |  |

[^28]|  |  | 6. Clarification | 26, 27, 28 | 3 |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 7.Expressing like dislike | 29, 32, 33 | 3 |
|  |  | 8. Congratulation | 35, 36, 37 | 3 |
|  |  | $9 .$ <br> Announcement | 38, 39, 40 | 3 |
|  |  | 10. Shopping list | 41, 42, 43 | 3 |
| 2. | Reading | 1. Prohibition | 44, 45, 46 | 3 |
|  |  | 2. Instruction | 47, 48, 49, 50, 51 | 5 |
|  |  | $3 .$ Congratulation | 52, 53, 54, 75 | 4 |
|  |  | 4. <br> Announcement | $\begin{aligned} & 55,56,57,58,59, \\ & 60 \\ & \hline \end{aligned}$ | 6 |
|  |  | 5. Shopping list | $\begin{aligned} & 61,62,63,64,65, \\ & 66 \end{aligned}$ | 6 |
|  |  | 6. Procedure text | 67, 68, 69, 70 | 4 |
|  |  | 7. Descriptive text | 71, 72, 73, 74 | 4 |
| 3. | Writing | 1. Descriptive text | 1 | 1 |
|  |  | 2. Mention things( vocabulary) | 2 | 1 |
|  |  | 3. Arranged the words about instruction | 3 | 1 |
|  |  | 4. Greeting card and congratulation | 4 | 1 |
| Total |  |  |  | 75 |

The researchergave the test for students' English achievement, it was designed to provide information about the learner had been taught in class. The researcher made the test in form 51 items multiple choice and 4 items essay test based on indicators in
sillabusSMP/MTs. The score every item the test was 2 . If the item true got the score was 2 then, if the item false the got score was 0 .

## E. Validity and Reliability Instrument

## 1. Validity

AnasSudijono stated that, "validity is a characteristic of the good test. To get the validity of an instrumentcan be used two ways, totality of the test validity and item validity. Item validity is a part of the test as a totality to measure the questionnaire by items". ${ }^{14}$ In this research, the researcher used item validity got the validity of instrumentation.

## 2. Reliability

Then, theinstrument of the research must be reliable. Brown said that, "a reliable test is consistent and dependable". ${ }^{15}$ The reliable of the instrument to show the real of instrument to measure the questionnaire and test.

To examine content of questionnaire and test by using criteria validity.Thegotitem validity of questionnaire and test the researcher analyzed by Product Moment formula version Pearson.Then, the reliable of instrument the researcher uses Cronbach Alpha formula.

To examine the validity and reliable of instrument would done towards questionnaire for attitude and English achievement for test. The

[^29]researcher used the SPSS program to examine the validity and reliability of instrument.

The researcher given the questionnaire and test to try out for students in the same grade with the sample but different school. The sample use to get the data of questionnaire and test validity from Mts. YPKS Padangsidimpuan and my neighbor with the same grade with the sample.

## F. The Result Try-outValidity and Reliability Instruments

## 1. The result of try-out questionnaire

The researcher got the data of questionnaire of about attitude from 50 respondent of students. the result of validity of questionnaire by 50 items, there were 25 items were valid and 25 items were invalid. So, the researcher used 25 items as instrument in this research. The calculation how to get the data it could be seen on appendix 2 and 3 .

Table V
The Result Try out of Questionnaire Validity

| No. | Indicators | Sub Indicators | Number <br> of items | Total |
| :--- | :--- | :--- | :--- | :--- |
| 1. | The <br> behavioral | 3. The students respond the <br> object in particular <br> situation. | 11,14 | 2 |
|  |  | 4. The students' activity to <br> do something. | $2,7,10$, <br> 13,16 | 5 |
| 2. | The <br> cognitive | 3. The students' perception <br> or concept about an object | $21,24,25,34$ <br> 31,34 | 5 |


|  |  | 4. The students' beliefs to <br> receive knowledge and <br> understanding in <br> the learning process | $23,27,28$, <br> $30,32,33$ | 6 |
| :--- | :--- | :--- | :--- | :--- |
| 3. | The <br> affective | 3. The students feeling for an <br> object | $39,43,44$, <br> $45,46,47$, | 6 |
|  | 2. The students express like <br> or dislike about the object. | $48,49,50$ | 3 |  |
|  | Total |  |  | $\mathbf{2 5}$ |

The reliability of instrument was to know the good character items of questionnaire to use as instrument got the data.Based on the significant level $5 \%$ (0.05) with $\mathrm{df}=\mathrm{N}-2=50-2=48$. So, dfwas 48 onr $r_{\text {tabel }}$ Was0.0.284and $r_{\text {count }}=0.696$, cause $r_{\text {count }}>r_{\text {table }}(0.696>0.284)$. So, the questionnairewas reliable, then it couldusedasinstrument to collecting data.

## 2. Result of try-out test

The researcher got the test validity from 50 respondents of students got the data of English achievement on the same grade but different school with the sample. The researcher given the test to students, they could answer on two hours. The form of the test were 75 items multiple choice The result of try out test validity as follow:

Table VI
The Result of Try out Test Validity (Y)

| No. | English skill | Indicator | Number of item | Total |
| :---: | :---: | :---: | :---: | :---: |
| 1. | Speaking | 1. Greeting | 6,7, 8 | 3 |
|  |  | 2. Prohibition | 9, 12, 13 | 3 |
|  |  | 3. Instruction | 4,15, 17 | 3 |
|  |  | 4. Asking and giving information, fact, opinion | 19, 20, 21 | 3 |
|  |  | 5. Thank you, forgive and respectful | 22, 24, 25 | 3 |
|  |  | 6. Clarification | 26, 27, 28 | 3 |
|  |  | 7.Expressing dislike $\quad$ like | 29, 32, 33 | 3 |
|  |  | 8. Congratulation | 35, 36, 37 | 3 |
|  |  | 9. Announcement | 38, 39, 40 | 3 |
|  |  | 10. Shopping list | 41, 42, 43 | 3 |
| 2. | Reading | 1. Prohibition | 44, 45, 46 | 3 |
|  |  | 2. Instruction | 47, 48, 49 | 3 |
|  |  | 3. Congratulation | 52, 53, 54 | 3 |
|  |  | 4. Announcement | 55, 56, 60 | 3 |
|  |  | 5. Shopping list | 61, 62, 63 | 3 |
|  |  | 6. Procedure text | 67, 68, 69 | 3 |
|  |  | 7. Descriptive text | 71, 72,74 | 3 |
| 3. | Writing | 1. Descriptive text | 1 | 1 |
|  |  | 2. Mention things( vocabulary) | 2 | 1 |
|  |  | 3. Arranged the words about instruction | 3 | 1 |
|  |  | 4. Greeting card and congratulation | 4 | 1 |
| Total |  |  |  | 51 |

From the table could concluded the result of test that 51 was
valid and 24was not valid. There were 51 items multiple choice were valid. The researcher used the test were 51 items multiple choice and 4 items essay test.

The test for writing, the researcher divides the score into five criteria which the score of point content, organization, language use, vocabulary, and mechanic. There are five aspect are differently use (30 point) to content, (20 point) to organization, (20 point) to vocabulary, (25 point) to language use, and (5 point) to mechanic. So, the total maximal of writing score is $100 .{ }^{16}$

Therefore, the writer uses those scores to count student's writing
ability. It will be presented about the score of criteria as follow:

1. Content
a. 30-27: EXCELLENT TO VERY GOOD: knowledgeable; substantive; thorough development of thesis; relevant to the assigned topic.
b. 26-22: GOOD TO AVERAGE: Some knowledge of the subject; adequate range; limited development of thesis; mostly relevant to the topic, but lacks detail.
c. 21-17: FAIR TO POOR: limited knowledge of the subject; little substance; inadequate development of topic.
d. 16-13: VERY POOR: does not show knowledge of subject; nonsubstantive; not pertinent; or not enough to evaluate.
2. Organization
a. 20-18:EXCELLENT TO VERY GOOD: fluent expression; ideas clearly stated / supported; succinct; well-organized; logical sequencing; cohesive.
b. 17-14:GOOD TO AVERAGE: somewhat choppy; loosely organized but main ideas stand out; logical but incomplete sequencing.
c. 13-10: FAIR TO POOR: non-fluent; ideas confused or disconnected; lacks logical sequencing and development.
d. 9-7: VERY POOR: does not communicate; no organization; or not enough to evaluate.
3. Language use

[^30]a. 25-22: EXCELLENT TO VERY GOOD: effective complex constructions; few errors of agreement, tense, number, word order / function, articles, pronouns, preposition.
b. 21-18: GOOD TO AVERAGE: effective but simple constructions; minor problems in complex constructions; several errors in agreement, tense, number, word order / function, articles, pronouns, prepositions but meaning seldom obscured.
c. 17-11: FAIR TO POOR: major problems in simple / complex constructions, frequent errors of negation; agreement, tense, number, word order / function, articles, pronouns, prepositions and / or fragments, run - ons, deletions; meaning confused or obscured.
d. 10-5: VERY POOR: virtually no mastery of sentence construction rules; dominated by errors; does not communicate; or not enough to evaluate.
4. Vocabulary
a. 28-18: EXCELLENT TO VERY GOOD: sophisticated range; effective word / idiom choice and usage; word from mastery; appropriate register.
b. 17-14: GOOD TO AVERAGE: adequate range; occasional errors of word / idiom form, choice, usage but meaning not obscured.
c. 13-10: FAIR TO POOR: limited range; frequent errors of word / idiom form, choice, usage; meaning or obscured.
d. 9-7: VERY GOOD: essentially translation; little knowledge of English vocabulary, idioms, word form; or not enough to evaluate.
5. Mechanic
a. 5: EXCELLENT TO VERY GOOD: demonstrates mastery of conventions, few errors of spelling, punctuation, capitalization, paragraphing.
b. 4: GOOD TO AVERAGE: Occasional errors of spelling, punctuation, capitalization, paragraphing, but meaning not obscured.
c. 3: FAIR TO POOR: frequent errors of spelling, punctuation, capitalization, paragraphing, poor handwriting, meaning confused or obscured.
d. 2: VERY POOR: no mastery or conventions; dominated by errors of spelling, punctuation, capitalization, paragraphing, handwriting illegible; or not enough to evaluate. ${ }^{17}$

Based on the significant level $5 \%(0.05) \mathrm{df}=\mathrm{N}-2=50-2=48$, So,

$$
\text { ther }{ }_{\text {table }}=0.284 \text { and } r_{\text {count }}=0.724, \text { cause } r_{\text {count }}>r_{\text {table }}(0.724>0.284 \text { was high }
$$

[^31]reliable). The test was reliable, so the test couldusedinstrument to get the data.

## G. Technique of Data Analysis

In correlationresearch, the most suitable analysis by using the statistical process. It means that all the data are collectand analyze by using "r" Product Moment formula. The researcher used Product Moment formula this research to find the correlation between two variables.

The correlation technique stated by Pearson, it used to know there was or there wasn't correlation between two variables. The researcher gave the questionnaire and test to students, then the result analyze the data by using "r" Product Moment formula.

## 1. Examine the Hypothesis

Based on the hypothesis, the analysis the data to get the result of the research.The hypothesis wasanswer the result of the research.

## a. The interpretation of hypothesis

After analysis the data by "r" Product Moment formula. The researcher taken the interpretation of coefficient correlation to know the hypothesis accepted or rejected. The interpretation of hypothesis, as follow:

Table VII
Table Interpretation of Hypothesis

| No. | Interpretation |
| :--- | :--- |
| 1. | $F_{(\text {count })}>F_{(\text {table })}$ hypotheses is accepted |
| 2. | $F_{(\text {count })}<F_{(\text {table })}$ hypotheses is rejected ${ }^{18}$ |

## b. Interpretation of Correlation

The interpretation of coefficient correlation, as follow:
Table VIII
Table of Interpretation Coefficient Correlation

| No. | Score | Interpretation of the Product Moment |
| :---: | :---: | :---: |
| 1. | $0.00-0,20$ | Lowest |
| 2. | $0.20-0.40$ | Low |
| 3. | $0.40-0.70$ | Enough |
| 4. | $0.70-0.90$ | High |
| 5. | $0.90-1.00$ | Very High |

To know the contribution of variable X and Y , it can be
definite with the formula diterminan correlation:
$K P=r^{2} \times 100 \%$

Where:

$$
\begin{aligned}
\mathrm{KP} & =\text { definite correlation (Diterminan) } \\
\mathrm{r} & =\text { Coefficient correlation }{ }^{19}
\end{aligned}
$$

[^32]
## CHAPTER IV

## THE RESULT OF RESEARCH

## A. Description of Data

This chapter presents research result. The instrument used in this research was questionnaire and test. The questionnaire used to get the data about students' attitude and test to get the students' English achievement.So, the researcher describe the data, the score of students' attitude are calculated by applying statistical analysis can be illustrated into description of the data. Then, it's find clearly that this research to find out the mean score of the students to both variables students' attitude as X variable and students' English achievement as Y variable.Then, researcher will describe the result based on the data that had been researched as follow.

## 1. Students' Attitude

Based on the result of analyzing the respondents' answer by using questionnaire, the researcher calculated the result of variable students' attitude was described on the table below:

Table IX
The Resume of Score Students’ Attitude

| The highest score | 94 |
| :---: | :---: |
| The lowest score | 60 |
| Range | 34 |
| Mean | 72.50 |
| Median | 73 |
| Modus | 67 |
| Standard Deviation | 73.75 |

Based on the table above, the mean was 72.50 , median was 73 , modus was 67, range was 34 , and standard deviation was 73.75 . The researcher got 94 for highest score and the lowest score was 60 . The calculation of how to get it can be
seen in appendix 16. Then, the computed of the frequency distribution of the students' score of class can be applied into table frequency distribution as follows:

Table X
The Frequency Distribution ofStudents’ Attitude

| Interval | Mean | Frequency |
| :---: | :---: | :---: |
| $60-64$ | 62 | 10 |
| $65-69$ | 67 | 12 |
| $70-74$ | 72 | 10 |
| $75-79$ | 77 | 7 |
| $80-84$ | 82 | 6 |
| $85-89$ | 87 | 2 |
| $90-94$ | 92 | 3 |
| Total | 539 | 50 |

Based on table above, it can be drawn at histogram as below:


From the histogram above, it had been known that the variable revelation of students' attitude indicate that respondent there were interval $60-64$ for 10 students,interval 65 - 69 for 12students, interval 70 - 74 for 10 students, interval 75 - 79 for 7 students, interval $80-84$ for 6 students, interval $84-89$ for 6 students, interval $85-89$ for 2 student, and interval $90-94$ for 3 student.

## 2. Students' English Achievement

After collected the data in this research of students' English achievement for variable Y that used test to get the result of students' English achievement.The resume score of students' English achievement has gotten as table below:

Table XI
The Resume of Score Students' English Achievement

| The highest score | 86 |
| :---: | :---: |
| The lowest score | 26 |
| Range | 60 |
| Mean | 72 |
| Median | 76.62 |
| Modus | 75.29 |
| Standard Deviation | 73.29 |

Based on the table above, the mean was 72 , median was 76.62 , modus was 75.29 , range was 60 , and standard deviation was 73.29 . The researcher got 86 for highest score and the lowest score was 26 . The calculation of how to get it can be seen in appendix 17. Then, the computed of the frequency distribution of the students' score of class can be applied into table frequency distribution as follows:

Table XII
The Frequency Distribution of Students' Achievement

| Interval | Mean | Frequency |
| :---: | :---: | :---: |
| $26-34$ | 30 | 1 |
| $35-43$ | 39 | 1 |
| $44-52$ | 48 | 4 |
| $53-61$ | 57 | 6 |
| $62-70$ | 66 | 8 |
| $71-79$ | 75 | 16 |
| $80-88$ | 84 | 14 |
| Total | 399 | 50 |

Based on table above, it can be drawn at histogram as below:


From the histogram above, it had been known that the variable revelation of students' English achievement indicated that respondent there were interval $26-34$ for 1 student, interval $35-43$ for 1 student, interval $44-52$ for 4 students, interval 53 - 61 for 6 students, interval $62-70$ for 8 students, interval $71-79$ for 16 students, and interval $80-88$ for 14 students. Based on histogram above, it known that the students got good value,

## B. Testing of Hypothesis

The hypothesis of this research there was correlation of students' attitude and students' English achievement at grade VIII in SMP Negeri 9 Padangsidimpuan. It was analyze by using Product Moment correlation by Pearson.

The statistic calculation of testing hypothesis in this research of the correlation students' attitude and English achievement at grade VIIISMP Negeri

9Padangsidimpuan.There are some procedures had be done to get the score or value of Product Moment Correlation in below:

1. The researcher making the table about result of $X$ and $Y$ variables
2. Calculating the result of $X$ and $Y$ variables by Product Moment to get the result of $r_{x y}$.
3. Comparing the result of $r_{x y}$ and $r_{\text {tabel }}$.
4. Then, giving interpretation coefficient correlation of the result $r_{x y}$ and $r_{\text {tabel }}$ then made conclution.

It means the result and hypothesis testing showed the correlation of students' atitude and students' English achievement , and hypothesis alternative $\left(H_{a}\right)$ was accepted and hypothesis zero $\left(\mathrm{H}_{0}\right)$ was rejected. Based on calculation with Pearson Product Moment formula, the result of of $r_{x y}$ was 0.441 .

Based on the tableof Product Moment thesignificant $5 \%, \mathrm{df}=\mathrm{N}-2=50-2=48$, so $\mathrm{r}_{\text {table }}$ was 0.284 . It showed $r_{\text {count }}$ was higher than $r_{\text {table }}$ on $0.441>0.284$. The hypotheses testing was hypothesis alternative $\left(H_{a}\right)$ was accepted. It means there was correlation of students' attitude and students' English achievement at grade VIII SMP Negeri 9 Padangsidimpuan. It was categorize was enough. Then, the calculation of how to get the result of $r_{x y}$ it could be seen on the appendix 18 .

Next, to know the categorize the correlation of students' attitude and students' English achievement, it would be interpretated on table below:

Table XIII
Table of Interpretation Coefficient Correlation

| No. | Score | Interpretation of the Product Moment |
| :---: | :---: | :---: |
| 1. | $0.00-0.20$ | Lowest |
| 2. | $0.20-0.40$ | Low |


| 3. | $\mathbf{0 . 4 0 - 0 . 7 0}$ | Enough |
| :---: | :---: | :---: |
| 4. | $0.70-0.90$ | High |
| 5. | $0.90-1.00$ | Very High $^{1}$ |

The score would be interpreted to the interpretation table score. So, it was located between 0.40-0.70it means the correlation of students' attitude and students' English Achievement was enough.

Then, to know the contribution of X variable and Y variable it can use the formula: $\mathrm{KP}=\mathrm{r}^{2} \mathrm{X} 100 \%$. Based on the calculation, the result of the coefficient contributionit was $19.44 \%$, itmean that the contribution of attitude toward English achievement was $19.44 \%$. So, the remainder it was $80.56 \%$ determined by other variables. Next, the calculation to get the contribution correlation it can be seen on appendix 13.

## C. Discussion

Based on the calculation and explanation above, the researcher conclude there was correlation of students' attitude and students' English Achievement. The hypothesis alternative was accepted. The hypothesis was accepted, the result was $r_{\text {count }}$ higher than $r_{\text {table }}$ on $0.441>0.284$.

Based on the theory of learning Thordike can say "connectionisme" that "study is processinteraction of stimulation and responses and study can do to try something to act (trial and error)". ${ }^{2}$ The study was the effort to create the correlation of stimulation and responses on learning process. The result of students' achievement was caused of the strategy of the learning and supported the internal and external factors could influence of

[^33]students' attitude.Then, the researhcer conclude that study was process interraction to create stimulation and response.

The result of this research same with the theory of learning was theory connectionisme was interaction of stimulation and responses and study can do to try something to act. So, the result of the research there was correlation of students' attitude and students’ English achievement. Then, the students' English achievement was very influence how to manage and develop the influence of learning, so thatcould the good students' achievement.

Based on the related findings, the researcher discussed the result of this research and compared with the related findings. First, According to, "Azan Zuhri on his thesis with entitled: The Correlation Between Learning Discipline and Students’ Achievement in Learning English of VIII Grade Students SMP Negeri 1 Batang Toru. Based on the result of this thesis, he conclude that there wassignificant correlation learning discipline and students' achievement in learning English grade VIII at SMP Negeri 1 Batang Toru because $r_{\text {count }}$ was higher than $r_{\text {table }}$ on $0.332>0.312$.

The result of the research $r_{\text {count }}$ was higher than $r_{\text {table }}$ on $0.441>0.284$, while the result of related findings $r_{\text {count }}$ was higher than $r_{\text {table }}$ on $0.332>0.312$. So, my result was higher than the result of related findings on $(0.441>0.284)$ was higher than $0.332>0.312$.

Second, Zahronadid research on her thesis with entitled: The Correlation between Learning Motivation and English Achievement(A Study to the Grade VIII At SMP Negeri 3 Siabu). She concludes the result of the thesis there wassignificant correlation between learning motivation and English achievementwith the value $r_{\text {count }}$ higher than $r_{\text {table }} 0.890>0.304$. So, the the hypothesis aws accepted.

The result of the research $r_{\text {count }}$ was higher than $r_{\text {table }}$ on $0.441>0.284$, while the result of related findings $r_{\text {count }}$ was higher than $r_{\text {table }}$ on $0.890>0.304$. So, the result of related finding was higher than my result on $0.890>0.304$ was higher than $(0.441>0.284)$.

The last, Rita Juliana Ritonga on her thesis with entitled:The Correlation between Students' Motivation and Speaking Ability at Grade VII MTs N 2 Padangsidimpuan. She concludes that the result of her thesis there was any significantly correlation between students' motivation and speaking ability at grade VII MTs N 2 Padangsidmpuan the result was the value $r_{\text {count }}$ higher than $r_{\text {table }} 0.615>0.374$. So, the hypothesis was accepted.

The result of the research $r_{\text {count }}$ was higher than $r_{\text {table }}$ on $0.441>0.284$, while the result of related findings $r_{\text {count }}$ was higher than $r_{\text {table }}$ on $0.615>0.374$. So, the result of related finding was higher than my result on $0.615>0.374$ was higher than $(0.441>0.284)$.

## D. Threats of the Research

At the first time for the researcher to conduct a research, the reseracher found the threat of this researchsuch as the students needed more time for fill the questinnaire and answering the test. There were some students that were less concentrate and lack of serious to answer the test. So, it can disturb the concentration of the others students.

Even though, the researcher attempted to do the best, some weakness and decrease the meaning of this research were finished by consultation with the advisors.

## CHAPTER V CONCLUSION AND SUGGESTION

## A. Conclusion

Based on the result of the research, the researcher made conclusion, there was correlation of students attitude and students' English achievement at grade VIII SMP N 9 Padangsidimpuan. Thevalue of $r_{\text {count }}$ calculated are 0.441 , while the value of the $r_{\text {table }}$ in Pearson Product Moment formulated on the degree of freedom 5\% significant was 0.284 . So, the result of research was $r_{\text {count }}$ higher than $r_{\text {table }}$ on $0.441>0.284$. It has enough correlation and it means that the hypothesis was accepted.

## B. Suggestion

After finishing this research, the researcher has suggestion as follows to:

1. The Principal of SMP N 9 Padangsidimpuan, to develop good attitude on learning Englishto get the best result of students' English achievement.
2. The teacher especially English teachers of SMP N 9 Padangsidimpuan were hoped to develop students' attitude so that the students enjoy studying English.
3. Other researcher, the researcher hopesthat the others researchers who want to conduct a research related to this research to find the others topic had correlate with English achievement.

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## A. Identity

| Name | $:$ DESI HARDIANI HARAHAP |
| :--- | :--- |
| Nim | $: 113400006$ |
| Place and Birthday | $:$ Singali, $28^{\text {th }}$ February 1993 |
| Sex | $:$ Female |
| Religion | $:$ Moslem |
| Address | $:$ Singali, jln. Siharang - karang |

## B. Parent

1. Father's name : Mauli Harahap
2. Mother's name : Nurliana Siregar

## C. Educational Background

1. Elementary School : SD N 200402 Sabungan Jae (2005)
2. Junior High School : SMP N 9 Padangsidimpuan (2008)
3. Senior High School : SMK N 1 Padangsidimpuan (2011)
4. Institute : IAIN Padangsidimpuan (2015)

## Appendix 1

## ANGKET PENELITIAN

Petunjuk pengisian:
Angket penelitian ini bertujuan untuk menggali informasi tentang sikap siswa terhadap pelajaran bahasa Inggris. Di dalam kolom ini berisi tentang gambaran diri anda. Berikan jawaban menurut anda dengan menandai salah satu dari kolom SS, S, R, TS, dan STS dengan tanda ( $\sqrt{ }$ ). Jawablah dengan jujur menurut dirimu sendiri.

Keterangan:
SS : Sangat Setuju
S : Setuju
R : Ragu-ragu
TS : Tidak Setuju
STS : Sangat Tidak Setuju

| No. | PERNYATAAN | SS | S | R | TS | STS |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- |
| 1. | Saya tidak pernah absen ketika jam pelajaran <br> bahasa Inggris. |  |  |  |  |  |
| 2. | Saya menulis catatan tentang materi yang telah <br> diajarkan oleh guru agar saya lebih <br> memahaminya. |  |  |  |  |  |
| 3. | Saya sealu semangat mengikuti diskusi tentang <br> bahasa Inggris. |  |  |  |  |  |
| 4. | Saya selalu bertanya tentang materi bahasa <br> Inggris. |  |  |  |  |  |
| 5. | Saya sering memberikan pendapat ketika <br> pelajaran bahasa inggris. |  |  |  |  |  |
| 6. | Saya belajar bahasa Inggris hanya sebelum ujian. |  |  |  |  |  |
| 7. | Saya selalu mengerjakan tugas dan <br> mengumpulkannya tepat waktu. |  |  |  |  |  |
| 8. | Pekerjaan rumah dapat membantu saya <br> mengulang pelajaran yang sebelumnya. |  |  |  |  |  |
| 9. | Saya mengejakan tugas bahasa Inggris sebanyak- <br> banyaknya. |  |  |  |  |  |
| 10. | Saya tidak pernah menyontek ketika ujian <br> bahasa Inggris. |  |  |  |  |  |
| 11. | Saya malu berbicara bahasa Inggris di depan <br> kelas. |  |  |  |  |  |


| 12. | Saya sering mempraktekkan kemampuan saya <br> dalam bahasa Inggris. |  |  |  |  |  |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- |
| 13. | Membaca buku bahasa Inggris, kamus, majalah, <br> dan koran berbahasa Inggris akan menambah <br> kosa kata (vocabulary) saya. |  |  |  |  |  |
| 14. | Jika saya mempunyai masalah atau kesulitan <br> tentang bahasa Inggris, saya selalu bertanya <br> kepada guru bahasa Inggris. |  |  |  |  |  |
| 15. | Saya sering tidak memperhatikan guru ketika <br> sedang menjelaskan materi bahasa Inggris di <br> kelas. |  |  |  |  |  |
| 16. | Saya mengikuti kursus bahasa Inggris di luar <br> sekolah untuk meningkatkan kemampuan saya. |  |  |  |  |  |
| 17. | Saya sering permisi ketika jam pelajaran bahasa <br> Inggris. |  |  |  |  |  |
| 18. | Saya belajar bahasa Inggris tidak hanya sebelum <br> ujian, tetapi saya sering mengulang dan <br> mempraktekkan kemampuan saya dalam bahasa <br> Inggris untuk meningkatkan kemampuan saya. |  |  |  |  |  |
| 19. | Saya tidak bisa berbicara bahasa Inggris. |  |  |  |  |  |
| 20. | Mata pelajaran bahasa Inggris sangat penting <br> untuk dipelajari oleh murid Sekolah Menengah <br> Pertama (SMP/Mts.). |  |  |  |  |  |
| 21. | Pelajaran bahasa Inggris tidak membuat saya <br> sibuk dan malas untuk mengulang pelajaran <br> yang lain. |  |  |  |  |  |
| 22. | Menguasai dan memahami materi bahasa Inggris <br> merupakan tujuan dari pelajaran bahasa Inggris. |  |  |  |  |  |
| 23. | Saya belajar bahasa Inggris agar berwawasan <br> Suas. |  |  |  |  |  |
| 24. | Bahasa Inggris sangat penting untuk masa yang <br> akan datang karena bahasa Inggris adalah bahasa <br> Internasional. |  |  |  |  |  |
| 25. | Belajar bahasa Inggris dapat mempermudah <br> untuk mendapat pekerjaan. |  |  |  |  |  |
| 26. | Pelajaran bahasa Inggris adalah pelajaran yang <br> sangat membosankan. |  |  |  |  |  |
| 27. | Saya tidak dapat menyimpulkan point penting <br> dalam pelajaran bahasa Inggris oleh saya sendiri. |  |  |  |  |  |
| 28. | Pelajaran bahasa Inggris sangat sulit dipahami. |  |  |  |  |  |
| 29. | Saya berharap saya bisa berbahasa Inggris <br> dengan lancar. |  |  |  |  |  |


| 30. | Saya tidak bisa membaca buku berbahasa <br> Inggris. |  |  |  |  |  |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- |
| 31. | Pelajaran bahasa Inggris itu penting karena saya <br> berharap suatu hari dapat berkunjung ke luar <br> negeri yang masyarakatnya berbahasa Inggris. |  |  |  |  |  |
| 32. | Menguasai bahasa Inggris dengan baik dapat <br> membantu saya dalam mata pelajaran yang lain. |  |  |  |  |  |
| 33. | Saya mempunyai banyak pengetahuan ketika <br> belajar bahasa Inggris. |  |  |  |  |  |
| 34. | Pelajaran bahasa Inggris adalah bukan pelajaran <br> yang sangat sulit dibandingkan dengan pelajaran <br> yang lain. |  |  |  |  |  |
| 35. | Saya suka belajar bahasa Inggris. |  |  |  |  |  |
| 36. | saya tidak suka belajar bahasa Inggris. |  |  |  |  |  |
| 37. | Saya bangga belajar bahasa Inggris. |  |  |  |  |  |
| 38. | Saya suka membaca buku bahasa Inggris, koran, <br> dan majalah berbahasa Inggris untuk <br> meningkatkan kemampuan saya dalam berbahasa <br> Inggris. |  |  |  |  |  |
| 39. | Saya sangat senang dan tidak pernah bosan <br> belajar bahasa Inggris di kelas. |  |  |  |  |  |
| 40. | Saya suka mendengarkan lagu bahasa Inggris. |  |  |  |  |  |
| 41. | Rasa ingin tahu saya membuat saya rajin belajar <br> bahasa Inggris dengan baik. |  |  |  |  |  |
| 42. | Saya tidak suka membaca buku berbahasa <br> Inggris. |  |  |  |  |  |
| 43. | Saya sangat senang mempraktekkan kemampuan <br> bahasa Inggris saya dan saya tidak peduli <br> walaupun salah. Salah adalah proses dalam <br> belajar. |  |  |  |  |  |
| 44. | Saya senang ketika berkomunikasi dengan <br> menggunakan bahasa Inggris. |  |  |  |  |  |
| 45. | Belajar bahasa Inggris membuat saya <br> bersemangat untuk belajar. |  |  |  |  |  |
| 46. | Saya merasa cemas ketika berbicara dengan <br> menggunakan bahasa inggris. |  |  |  |  |  |
| 47. | Saya tertarik untuk belajar bahasa Inggris karena <br> guru saya mempunyai banyak strategi dalam <br> mengajar bahasa Inggris. |  |  |  |  |  |
| 48. | Saya belajar bahasa Inggris agar lebih percaya <br> diri. |  |  |  |  |  |
| 49. | Saya tidak merasa cemas ketika menjawab |  |  |  |  |  |


|  | pertanyaan bahasa Inggris di kelas. |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 50. | Saya tidak percaya diri berbicara bahasa Inggris. |  |  |  |  |  |

Padangsidimpuan, Oktober 2015
Validator

Drs. Sahadir Nasution, M.Pd
NIP. 196207281994031002

## Appendix 2

## Validity of Questionnaire

| NO | NO ITEM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | $\mathbf{X}^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | $\begin{aligned} & \hline 1 \\ & 0 \end{aligned}$ | $\begin{aligned} & 1 \\ & 1 \end{aligned}$ | $\begin{array}{\|l\|} \hline 1 \\ 2 \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 1 \\ 3 \end{array}$ | $\begin{aligned} & 1 \\ & 4 \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 1 \\ 5 \end{array}$ | $\begin{array}{\|l\|} \hline 1 \\ 6 \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 1 \\ 7 \end{array}$ | $\begin{array}{\|l\|} \hline 1 \\ 8 \end{array}$ | $\begin{array}{\|l\|} \hline 1 \\ 9 \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 2 \\ 0 \end{array}$ | $\begin{array}{\|l\|} \hline 2 \\ 1 \end{array}$ | $\begin{array}{\|l\|} \hline 2 \\ 2 \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 2 \\ 3 \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 2 \\ 4 \end{array}$ | $\begin{array}{\|l\|} \hline 2 \\ 5 \end{array}$ | $\begin{array}{\|l\|} \hline 2 \\ 6 \end{array}$ | $\begin{array}{\|l\|} \hline 2 \\ 7 \end{array}$ | $\begin{array}{\|l\|} \hline 2 \\ 8 \end{array}$ | $\begin{array}{\|l\|} \hline 2 \\ 9 \end{array}$ | $\begin{array}{\|l\|} \hline 3 \\ 0 \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 3 \\ 1 \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 3 \\ 2 \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 3 \\ 3 \end{array}$ | $\begin{array}{\|l\|} \hline 3 \\ 4 \end{array}$ | $\begin{array}{\|l\|} \hline 3 \\ 5 \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 3 \\ 6 \end{array}$ | $\begin{array}{\|l\|} \hline 3 \\ 7 \\ \hline \end{array}$ | $\begin{array}{l\|} \hline 3 \\ 8 \end{array}$ | $\begin{aligned} & \hline 3 \\ & 9 \end{aligned}$ | $\begin{aligned} & \hline 4 \\ & 0 \end{aligned}$ | $\begin{aligned} & \hline 4 \\ & 1 \end{aligned}$ | $\begin{aligned} & 4 \\ & 2 \end{aligned}$ | $\begin{aligned} & 4 \\ & 3 \end{aligned}$ | $\begin{array}{\|l\|} \hline 4 \\ 4 \end{array}$ | $\begin{array}{\|l\|} \hline 4 \\ 5 \end{array}$ | $\begin{array}{\|l\|} \hline 4 \\ 6 \end{array}$ | $\begin{array}{\|l\|} \hline 4 \\ 7 \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 4 \\ 8 \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 4 \\ 9 \end{array}$ | $\begin{array}{\|l\|} \hline 5 \\ 0 \end{array}$ |  |  |
| 1 | 5 | 3 | 5 | 2 | 5 | 3 | 1 | 2 | 5 | 2 | 4 | 5 | 3 | 4 | 2 | 5 | 2 | 4 | 2 | 4 | 5 | 3 | 1 | 1 | 2 | 3 | 4 | 2 | 1 | 3 | 5 | 5 | 5 | 1 | 2 | 3 | 5 | 5 | 4 | 3 | 4 | 5 | 4 | 1 | 4 | 5 | 5 | 1 | 5 | 1 | 166 | 27556 |
| 2 | 3 | 4 | 2 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 4 | 2 | 4 | 3 | 3 | 3 | 4 | 3 | 2 | 3 | 4 | 2 | 4 | 3 | 4 | 2 | 4 | 3 | 4 | 3 | 2 | 4 | 3 | 2 | 3 | 3 | 4 | 3 | 3 | 2 | 4 | 2 | 4 | 4 | 1 | 3 | 2 | 152 | 23104 |
| 3 | 5 | 3 | 2 | 4 | 1 | 5 | 2 | 4 | 2 | 3 | 1 | 1 | 3 | 4 | 3 | 1 | 4 | 2 | 1 | 4 | 1 | 5 | 3 | 1 | 5 | 4 | 2 | 4 | 1 | 5 | 2 | 4 | 5 | 2 | 5 | 3 | 1 | 5 | 4 | 5 | 2 | 5 | 3 | 5 | 2 | 5 | 3 | 4 | 5 | 1 | 157 | 24649 |
| 4 | 2 | 1 | 5 | 2 | 5 | 1 | 5 | 2 | 4 | 1 | 5 | 5 | 2 | 1 | 5 | 2 | 1 | 5 | 4 | 3 | 1 | 4 | 4 | 2 | 3 | 4 | 5 | 2 | 1 | 5 | 3 | 1 | 4 | 2 | 1 | 4 | 4 | 5 | 3 | 2 | 1 | 4 | 2 | 5 | 1 | 3 | 4 | 2 | 1 | 3 | 147 | 21609 |
| 5 | 5 | 4 | 5 | 3 | 4 | 3 | 4 | 3 | 2 | 2 | 2 | 5 | 3 | 4 | 2 | 4 | 2 | 3 | 2 | 5 | 3 | 2 | 4 | 2 | 4 | 5 | 4 | 5 | 3 | 5 | 3 | 4 | 5 | 3 | 3 | 4 | 5 | 4 | 4 | 3 | 3 | 2 | 3 | 2 | 4 | 2 | 3 | 2 | 4 | 3 | 170 | 28900 |
| 6 | 4 | 2 | 4 | 2 | 3 | 3 | 3 | 4 | 4 | 3 | 1 | 3 | 3 | 4 | 2 | 4 | 3 | 2 | 4 | 4 | 3 | 3 | 2 | 4 | 2 | 1 | 4 | 2 | 4 | 3 | 4 | 2 | 4 | 4 | 4 | 3 | 2 | 4 | 2 | 4 | 4 | 2 | 3 | 2 | 3 | 2 | 4 | 2 | 3 | 4 | 152 | 23104 |
| 7 | 5 | 2 | 1 | 4 | 2 | 4 | 2 | 1 | 1 | 2 | 3 | 5 | 3 | 2 | 3 | 1 | 4 | 3 | 1 | 3 | 2 | 3 | 1 | 3 | 1 | 3 | 2 | 4 | 1 | 5 | 2 | 4 | 2 | 5 | 2 | 1 | 2 | 2 | 4 | 2 | 1 | 2 | 5 | 2 | 3 | 1 | 3 | 2 | 5 | 1 | 128 | 16384 |
| 8 | 3 | 2 | 1 | 5 | 4 | 4 | 3 | 3 | 1 | 2 | 4 | 3 | 4 | 5 | 2 | 4 | 3 | 5 | 4 | 2 | 4 | 1 | 4 | 2 | 4 | 2 | 3 | 2 | 1 | 4 | 3 | 5 | 4 | 3 | 4 | 3 | 5 | 5 | 4 | 3 | 2 | 1 | 3 | 2 | 3 | 4 | 5 | 4 | 3 | 5 | 162 | 26244 |
| 9 | 5 | 2 | 4 | 2 | 3 | 4 | 3 | 5 | 4 | 3 | 2 | 1 | 2 | 3 | 5 | 3 | 4 | 3 | 3 | 4 | 2 | 3 | 5 | 2 | 4 | 2 | 4 | 2 | 3 | 5 | 3 | 2 | 4 | 2 | 3 | 2 | 3 | 4 | 2 | 4 | 1 | 4 | 3 | 1 | 3 | 4 | 2 | 1 | 5 | 2 | 152 | 23104 |
| 10 | 4 | 3 | 4 | 4 | 4 | 2 | 4 | 4 | 3 | 3 | 4 | 3 | 4 | 4 | 3 | 4 | 2 | 4 | 2 | 5 | 3 | 5 | 5 | 5 | 4 | 3 | 4 | 2 | 4 | 2 | 4 | 4 | 4 | 4 | 2 | 4 | 3 | 2 | 2 | 2 | 4 | 3 | 4 | 2 | 3 | 2 | 3 | 1 | 4 | 2 | 166 | 27556 |
| 11 | 4 | 1 | 4 | 2 | 1 | 3 | 2 | 3 | 2 | 4 | 1 | 5 | 3 | 1 | 4 | 2 | 1 | 4 | 3 | 4 | 2 | 1 | 4 | 3 | 1 | 3 | 2 | 3 | 1 | 5 | 2 | 3 | 4 | 2 | 4 | 1 | 4 | 5 | 2 | 3 | 2 | 5 | 3 | 2 | 4 | 5 | 2 | 2 | 1 | 3 | 138 | 19044 |
| 12 | 4 | 5 | 3 | 4 | 3 | 2 | 4 | 3 | 5 | 3 | 2 | 2 | 4 | 5 | 1 | 5 | 3 | 2 | 5 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 3 | 4 | 2 | 4 | 5 | 3 | 1 | 3 | 4 | 3 | 2 | 1 | 5 | 3 | 1 | 5 | 3 | 2 | 3 | 4 | 5 | 3 | 4 | 3 | 5 | 27225 |
| 13 | 5 | 1 | 4 | 3 | 2 | 4 | 2 | 1 | 3 | 2 | 2 | 3 | 5 | 3 | 4 | 3 | 5 | 4 | 3 | 2 | 1 | 3 | 2 | 4 | 2 | 4 | 3 | 2 | 2 | 3 | 5 | 3 | 1 | 4 | 2 | 5 | 2 | 4 | 4 | 2 | 5 | 2 | 4 | 2 | 5 | 3 | 5 | 2 | 4 | 5 | 6 | 24336 |
| 14 | 5 | 2 | 3 | 4 | 1 | 2 | 3 | 1 | 4 | 2 | 3 | 5 | 3 | 3 | 5 | 1 | 3 | 3 | 5 | 2 | 3 | 2 | 5 | 3 | 1 | 2 | 4 | 1 | 5 | 1 | 2 | 3 | 4 | 5 | 3 | 1 | 4 | 4 | 2 | 4 | 2 | 4 | 3 | 2 | 4 | 2 | 4 | 2 | 1 | 1 | 4 | 20736 |
| 15 | 2 | 4 | 4 | 3 | 2 | 3 | 2 | 3 | 5 | 2 | 3 | 4 | 4 | 2 | 4 | 5 | 4 | 5 | 2 | 5 | 4 | 2 | 4 | 5 | 3 | 5 | 3 | 4 | 3 | 5 | 3 | 4 | 5 | 3 | 5 | 3 | 3 | 4 | 3 | 4 | 4 | 3 | 5 | 3 | 4 | 3 | 5 | 3 | 5 | 3 | 181 | 32761 |
| 16 | 1 | 2 | 3 | 5 | 2 | 5 | 3 | 1 | 4 | 1 | 3 | 1 | 3 | 1 | 3 | 5 | 2 | 1 | 2 | 3 | 4 | 5 | 3 | 1 | 4 | 3 | 4 | 3 | 4 | 1 | 3 | 4 | 5 | 2 | 4 | 1 | 3 | 1 | 4 | 3 | 4 | 2 | 1 | 3 | 1 | 4 | 2 | 1 | 5 | 1 | 137 | 18769 |
| 17 | 2 | 4 | 2 | 4 | 2 | 4 | 2 | 3 | 4 | 2 | 3 | 4 | 3 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 4 | 2 | 1 | 3 | 1 | 2 | 2 | 3 | 4 | 3 | 4 | 2 | 4 | 3 | 3 | 4 | 3 | 2 | 4 | 3 | 2 | 3 | 4 | 4 | 3 | 3 | 4 | 156 | 24336 |
| 18 | 4 | 4 | 4 | 5 | 2 | 2 | 3 | 4 | 2 | 1 | 1 | 3 | 2 | 3 | 1 | 3 | 5 | 1 | 3 | 5 | 1 | 3 | 2 | 4 | 5 | 2 | 5 | 3 | 1 | 1 | 2 | 1 | 5 | 2 | 3 | 2 | 1 | 5 | 1 | 1 | 2 | 3 | 2 | 1 | 3 | 1 | 5 | 1 | 5 | 1 | 132 | 17424 |
| 19 | 2 | 3 | 1 | 3 | 5 | 4 | 2 | 4 | 2 | 4 | 2 | 5 | 3 | 5 | 3 | 1 | 2 | 2 | 3 | 4 | 5 | 4 | 2 | 4 | 2 | 2 | 1 | 2 | 5 | 5 | 3 | 1 | 3 | 5 | 4 | 3 | 1 | 2 | 3 | 2 | 2 | 1 | 2 | 5 | 4 | 2 | 5 | 2 | 5 | 4 | 151 | 22801 |
| 20 | 1 | 4 | 2 | 4 | 1 | 5 | 4 | 5 | 3 | 3 | 4 | 5 | 5 | 4 | 3 | 4 | 5 | 2 | 1 | 2 | 4 | 2 | 4 | 5 | 4 | 3 | 4 | 3 | 2 | 3 | 1 | 2 | 5 | 3 | 3 | 5 | 1 | 2 | 3 | 2 | 4 | 5 | 5 | 2 | 4 | 1 | 1 | 2 | 3 | 5 | 160 | 25600 |
| 21 | 1 | 2 | 3 | 5 | 2 | 5 | 2 | 4 | 1 | 2 | 3 | 5 | 2 | 4 | 2 | 1 | 2 | 3 | 1 | 5 | 2 | 3 | 2 | 1 | 5 | 3 | 1 | 3 | 1 | 3 | 1 | 5 | 2 | 3 | 2 | 4 | 1 | 1 | 2 | 4 | 2 | 3 | 2 | 1 | 3 | 2 | 4 | 1 | 4 | 2 | 128 | 16384 |
| 22 | 5 | 2 | 5 | 3 | 1 | 3 | 1 | 5 | 3 | 2 | 3 | 3 | 2 | 1 | 3 | 4 | 2 | 3 | 3 | 2 | 3 | 2 | 3 | 5 | 4 | 3 | 4 | 3 | 2 | 5 | 2 | 3 | 5 | 1 | 3 | 1 | 5 | 4 | 2 | 2 | 3 | 4 | 2 | 2 | 3 | 4 | 5 | 3 | 5 | 4 | 153 | 23409 |
| 23 | 1 | 4 | 4 | 1 | 4 | 2 | 5 | 3 | 5 | 2 | 3 | 3 | 5 | 3 | 4 | 3 | 1 | 2 | 5 | 4 | 4 | 3 | 2 | 3 | 5 | 2 | 4 | 2 | 2 | 5 | 3 | 5 | 4 | 5 | 3 | 1 | 5 | 3 | 4 | 4 | 2 | 2 | 1 | 5 | 4 | 3 | 2 | 2 | 3 | 5 | 162 | 26244 |
| 24 | 1 | 2 | 3 | 1 | 2 | 1 | 2 | 4 | 5 | 2 | 3 | 4 | 1 | 4 | 2 | 3 | 1 | 4 | 2 | 4 | 2 | 4 | 2 | 1 | 5 | 2 | 3 | 2 | 1 | 4 | 2 | 3 | 1 | 1 | 3 | 1 | 2 | 5 | 3 | 1 | 5 | 2 | 3 | 4 | 2 | 5 | 3 | 2 | 5 | 2 | 132 | 17424 |
| 25 | 1 | 2 | 3 | 5 | 1 | 4 | 2 | 4 | 2 | 1 | 3 | 5 | 4 | 2 | 4 | 1 | 1 | 5 | 3 | 5 | 2 | 1 | 1 | 4 | 2 | 4 | 2 | 2 | 1 | 5 | 3 | 1 | 5 | 3 | 2 | 4 | 2 | 5 | 2 | 1 | 4 | 2 | 5 | 3 | 2 | 1 | 5 | 1 | 5 | 1 | 139 | 19321 |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 27 | 4 | 5 | 1 | 3 | 5 | 4 | 3 | 1 | 4 | 3 | 1 | 3 | 5 | 1 | 4 | 2 | 4 | 3 | 4 | 1 | 3 | 2 | 4 | 3 | 2 | 5 | 3 | 2 | 4 | 2 | 5 | 3 | 1 | 3 | 1 | 3 | 5 | 4 | 4 | 2 | 3 | 5 | 4 | 3 | 5 | 3 | 1 | 4 | 5 | 3 | 158 | 24964 |
| 28 | 4 | 5 | 3 | 3 | 4 | 2 | 4 | 4 | 2 | 4 | 3 | 2 | 4 | 4 | 4 | 3 | 4 | 2 | 2 | 4 | 2 | 4 | 3 | 4 | 3 | 2 | 4 | 3 | 4 | 4 | 3 | 4 | 2 | 4 | 2 | 3 | 4 | 3 | 4 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 4 | 3 | 168 | 28224 |
| 29 | 1 | 4 | 2 | 5 | 2 | 4 | 2 | 4 | 5 | 2 | 1 | 3 | 2 | 5 | 3 | 1 | 5 | 3 | 2 | 5 | 3 | 1 | 1 | 1 | 5 | 5 | 3 | 3 | 1 | 3 | 5 | 2 | 4 | 1 | 4 | 2 | 5 | 4 | 3 | 2 | 3 | 5 | 5 | 3 | 2 | 1 | 1 | 2 | 5 | 3 | 149 | 22201 |
| 30 | 5 | 4 | 1 | 1 | 2 | 3 | 5 | 2 | 1 | 1 | 2 | 1 | 5 | 3 | 4 | 2 | 1 | 2 | 5 | 4 | 2 | 4 | 3 | 5 | 3 | 1 | 5 | 3 | 1 | 5 | 4 | 5 | 2 | 4 | 2 | 5 | 3 | 3 | 4 | 2 | 5 | 1 | 4 | 5 | 3 | 4 | 1 | 4 | 4 | 5 | 156 | 24336 |
| 31 | 2 | 4 | 3 | 2 | 3 | 4 | 3 | 3 | 4 | 3 | 2 | 2 | 4 | 4 | 4 | 2 | 4 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 2 | 5 | 4 | 4 | 4 | 4 | 5 | 4 | 4 | 5 | 3 | 2 | 4 | 2 | 2 | 2 | 3 | 2 | 4 | 3 | 3 | 4 | 4 | 4 | 2 | 4 | 166 | 27556 |
| 32 | 4 | 2 | 3 | 3 | 2 | 3 | 4 | 4 | 3 | 5 | 5 | 2 | 3 | 4 | 2 | 3 | 4 | 5 | 4 | 5 | 2 | 4 | 3 | 5 | 5 | 5 | 3 | 5 | 3 | 4 | 5 | 4 | 4 | 3 | 4 | 2 | 2 | 3 | 2 | 3 | 2 | 5 | 3 | 3 | 3 | 4 | 3 | 4 | 4 | 4 | 176 | 30976 |
| 33 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 5 | 5 | 3 | 5 | 5 | 5 | 3 | 3 | 5 | 4 | 5 | 5 | 5 | 3 | 3 | 4 | 5 | 4 | 5 | 5 | 5 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 194 | 37636 |
| 34 | 3 | 2 | 3 | 2 | 1 | 3 | 5 | 5 | 2 | 5 | 5 | 1 | 3 | 5 | 3 | 5 | 2 | 1 | 3 | 5 | 3 | 2 | 4 | 5 | 5 | 5 | 3 | 2 | 5 | 1 | 5 | 5 | 5 | 3 | 3 | 3 | 3 | 4 | 3 | 5 | 3 | 5 | 5 | 2 | 4 | 3 | 5 | 4 | 4 | 3 | 176 | 30976 |
| 35 | 5 | 5 | 4 | 2 | 3 | 1 | 5 | 3 | 5 | 3 | 5 | 3 | 5 | 4 | 5 | 5 | 5 | 1 | 2 | 4 | 4 | 3 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 3 | 4 | 2 | 2 | 1 | 1 | 5 | 5 | 5 | 2 | 3 | 4 | 5 | 5 | 3 | 4 | 2 | 187 | 34969 |
| 36 | 2 | 4 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 1 | 3 | 2 | 2 | 4 | 2 | 5 | 4 | 5 | 1 | 5 | 3 | 2 | 4 | 2 | 4 | 2 | 5 | 4 | 5 | 5 | 3 | 4 | 3 | 4 | 2 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 2 | 3 | 4 | 2 | 2 | 153 | 23409 |
| 37 | 3 | 5 | 2 | 4 | 2 | 4 | 3 | 5 | 3 | 4 | 3 | 4 | 1 | 3 | 5 | 2 | 4 | 3 | 5 | 3 | 3 | 1 | 4 | 2 | 5 | 3 | 5 | 4 | 3 | 4 | 5 | 3 | 2 | 4 | 2 | 5 | 1 | 3 | 2 | 3 | 1 | 5 | 2 | 3 | 5 | 2 | 4 | 2 | 4 | 3 | 163 | 26569 |
| 38 | 1 | 4 | 2 | 5 | 1 | 3 | 3 | 5 | 2 | 5 | 1 | 5 | 3 | 1 | 5 | 2 | 4 | 5 | 2 | 1 | 4 | 1 | 4 | 2 | 1 | 4 | 2 | 1 | 3 | 1 | 3 | 2 | 5 | 2 | 4 | 2 | 4 | 5 | 3 | 1 | 5 | 3 | 3 | 5 | 2 | 1 | 3 | 5 | 5 | 1 | 147 | 21609 |
| 39 | 4 | 3 | 2 | 4 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 4 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 3 | 4 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 5 | 2 | 3 | 3 | 4 | 2 | 4 | 2 | 3 | 2 | 141 | 19881 |
| 40 | 4 | 3 | 2 | 5 | 4 | 3 | 4 | 2 | 4 | 4 | 3 | 3 | 2 | 3 | 4 | 5 | 3 | 4 | 4 | 3 | 2 | 4 | 3 | 5 | 4 | 3 | 2 | 4 | 3 | 3 | 4 | 2 | 3 | 4 | 2 | 3 | 3 | 2 | 3 | 4 | 3 | 3 | 3 | 2 | 3 | 4 | 2 | 3 | 3 | 3 | 161 | 25921 |
| 41 | 5 | 3 | 4 | 2 | 2 | 2 | 4 | 4 | 3 | 3 | 2 | 3 | 4 | 4 | 2 | 4 | 2 | 4 | 2 | 4 | 3 | 3 | 4 | 4 | 3 | 2 | 3 | 2 | 4 | 2 | 4 | 3 | 4 | 2 | 4 | 3 | 2 | 5 | 4 | 3 | 2 | 5 | 4 | 3 | 2 | 4 | 5 | 3 | 3 | 3 | 161 | 25921 |
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| 43 | 2 | 2 | 3 | 4 | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 5 | 3 | 2 | 3 | 2 | 3 | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 4 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 145 | 21025 |
| 44 | 3 | 2 | 3 | 4 | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 4 | 3 | 3 | 2 | 3 | 3 | 2 | 4 | 3 | 3 | 3 | 4 | 5 | 3 | 2 | 2 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 3 | 4 | 4 | 3 | 4 | 5 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 155 | 24025 |
| 45 | 1 | 4 | 5 | 5 | 4 | 2 | 5 | 4 | 5 | 5 | 1 | 5 | 5 | 5 | 2 | 4 | 1 | 5 | 4 | 5 | 5 | 4 | 4 | 2 | 5 | 4 | 2 | 4 | 5 | 1 | 5 | 5 | 4 | 5 | 4 | 1 | 5 | 5 | 4 | 2 | 5 | 1 | 5 | 5 | 4 | 5 | 5 | 4 | 4 | 2 | 193 | 37249 |
| 46 | 5 | 4 | 2 | 5 | 1 | 5 | 2 | 5 | 1 | 4 | 5 | 5 | 4 | 5 | 3 | 5 | 3 | 5 | 4 | 2 | 4 | 5 | 3 | 5 | 3 | 5 | 4 | 5 | 4 | 5 | 4 | 2 | 5 | 5 | 4 | 4 | 3 | 5 | 4 | 3 | 5 | 5 | 4 | 5 | 4 | 4 | 5 | 5 | 5 | 4 | 203 | 41209 |
| 47 | 2 | 2 | 3 | 4 | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 2 | 2 | 4 | 3 | 3 | 2 | 4 | 4 | 3 | 2 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 3 | 2 | 2 | 2 | 3 | 4 | 3 | 2 | 145 | 21025 |
| 48 | 4 | 3 | 2 | 1 | 3 | 5 | 2 | 1 | 2 | 1 | 3 | 2 | 1 | 3 | 5 | 5 | 3 | 1 | 5 | 3 | 2 | 5 | 4 | 1 | 4 | 4 | 3 | 3 | 4 | 4 | 5 | 3 | 5 | 3 | 4 | 1 | 3 | 1 | 4 | 2 | 5 | 1 | 4 | 2 | 4 | 1 | 5 | 2 | 1 | 2 | 147 | 21609 |
| 49 | 4 | 4 | 4 | 4 | 5 | 2 | 3 | 2 | 2 | 4 | 2 | 3 | 4 | 4 | 2 | 2 | 2 | 4 | 2 | 4 | 4 | 4 | 4 | 5 | 5 | 2 | 4 | 5 | 1 | 4 | 5 | 1 | 5 | 4 | 2 | 4 | 2 | 1 | 4 | 5 | 3 | 2 | 5 | 5 | 4 | 4 | 1 | 1 | 5 | 4 | 168 | 28224 |
| 50 | 4 | 3 | 3 | 4 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 5 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 5 | 3 | 2 | 3 | 3 | 4 | 3 | 3 | 2 | 4 | 3 | 5 | 4 | 4 | 3 | 4 | 4 | 3 | 2 | 3 | 2 | 3 | 4 | 4 | 2 | 3 | 156 | 24336 |
| TOTAL |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\sum_{\mathbf{7 8 4 4}} \mathbf{X}$ | $\sum_{1243956} \mathbf{X}^{2}$ |

## Appendix 3

## Result of questionnaire validity

| No. | $\mathbf{r}_{\text {count }}$ | $\mathbf{r}_{\text {table }}$ | Interpretatiton |
| :---: | :---: | :---: | :---: |
| 1. | 0.214 | 0.284 | Invalid |
| 2. | 0.425 | 0.284 | Valid |
| 3. | 0.209 | 0.284 | Invalid |
| 4. | 0.067 | 0.284 | Invalid |
| 5. | 0.169 | 0.284 | Invalid |
| 6. | 0.040 | 0.284 | Invalid |
| 7. | 0.367 | 0.284 | Valid |
| 8. | 0.271 | 0.284 | Invalid |
| 9. | 0.203 | 0.284 | Invalid |
| 10. | 0.485 | 0.284 | Valid |
| 11. | 0.289 | 0.284 | Valid |
| 12. | 0.029 | 0.284 | Invalid |
| 13. | 0.557 | 0.284 | Valid |
| 14. | 0.493 | 0.284 | Valid |
| 15. | 0.022 | 0.284 | Invalid |
| 16. | 0.542 | 0.284 | Valid |
| 17. | 0.132 | 0.284 | Invalid |
| 18. | 0.251 | 0.284 | Invalid |
| 19. | 0.184 | 0.284 | Invalid |
| 20. | 0.058 | 0.284 | Invalid |
| 21. | 0.479 | 0.284 | Valid |
| 22. | 0.166 | 0.284 | Invalid |
| 23. | 0.362 | 0.284 | Valid |
| 24. | 0.279 | 0.284 | Valid |
| 25. | 0.359 | 0.284 | Valid |
| 26. | 0.276 | 0.284 | Invalid |
| 27. | 0.401 | 0.284 | Valid |
| 28. | 0.443 | 0.284 | Valid |
| 29. | 0.007 | 0.284 | Invalid |
| 30. | 0.545 | 0.284 | Valid |
| 31. | 0.335 | 0.284 | Valid |
| 32. | 0.297 | 0.284 | Valid |
| 33. | 0.282 | 0.284 | Valid |
| 34. | 0.297 | 0.284 | Valid |
| 35. | 0.239 | 0.284 | Invalid |
| 36. | 0.230 | 0.284 | Invalid |
| 37. | 0.001 | 0.284 | Invalid |
| 38. | 0.259 | 0.284 | Invalid |
| 39. | 0.335 | 0.284 | Valid |
| 40. | 0.228 | 0.284 | Invalid |


| 41. | 0.252 | 0.284 | Invalid |
| :---: | :---: | :---: | :---: |
| 42. | 0.205 | 0.284 | Invalid |
| 43. | 0.295 | 0.284 | Valid |
| 44. | 0.304 | 0.284 | Valid |
| 45. | 0.418 | 0.284 | Valid |
| 46. | 0.403 | 0.284 | Valid |
| 47. | 0.231 | 0.284 | Invalid |
| 48. | 0.455 | 0.284 | Valid |
| 49. | 0.117 | 0.284 | Invalid |
| 50. | 0.387 | 0.284 | Valid |

## Appendix 1

## ANGKET PENELITIAN

Petunjuk pengisian:
Angket penelitian ini bertujuan untuk menggali informasi tentang sikap siswa terhadap pelajaran bahasa Inggris. Di dalam kolom ini berisi tentang gambaran diri anda. Berikan jawaban menurut anda dengan menandai salah satu dari kolom SS, S, R, TS, dan STS dengan tanda ( $\sqrt{ }$ ). Jawablah dengan jujur menurut dirimu sendiri.

Keterangan:
SS : Sangat Setuju
S : Setuju
R : Ragu-ragu
TS : Tidak Setuju
STS : Sangat Tidak Setuju

| No. | PERNYATAAN | SS | S | R | TS | STS |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- |
| 1. | Saya menulis catatan tentang materi yang telah <br> diajarkan oleh guru agar saya lebih <br> memahaminya. |  |  |  |  |  |
| 2. | Saya selalu mengerjakan tugas dan <br> mengumpulkannya tepat waktu. |  |  |  |  |  |
| 3. | Saya tidak pernah menyontek ketika ujian <br> bahasa Inggris. |  |  |  |  |  |
| 4. | Saya malu berbicara bahasa Inggris di depan <br> kelas. |  |  |  |  |  |
| 5. | Membaca buku bahasa Inggris, kamus, majalah, <br> dan koran berbahasa Inggris akan menambah <br> kosa kata (vocabulary) saya. |  |  |  |  |  |
| 6. | Jika saya mempunyai masalah atau kesulitan <br> tentang bahasa Inggris, saya selalu bertanya <br> kepada guru bahasa Inggris. |  |  |  |  |  |
| 7. | Saya mengikuti kursus bahasa Inggris di luar <br> sekolah untuk meningkatkan kemampuan saya. |  |  |  |  |  |
| 8. | Pelajaran bahasa Inggris tidak membuat saya <br> sibuk dan malas untuk mengulang pelajaran <br> yang lain. |  |  |  |  |  |
| 9. | Saya belajar bahasa Inggris agar berwawasan <br> luas. |  |  |  |  |  |


| 10. | Bahasa Inggris sangat penting untuk masa yang <br> akan datang karena bahasa Inggris adalah bahasa <br> Internasional. |  |  |  |  |  |
| ---: | :--- | :--- | :--- | :--- | :--- | :--- |
| 11. | Belajar bahasa Inggris dapat mempermudah <br> untuk mendapat pekerjaan. |  |  |  |  |  |
| 12. | Saya tidak dapat menyimpulkan point penting <br> dalam pelajaran bahasa Inggris oleh saya sendiri. |  |  |  |  |  |
| 13. | Pelajaran bahasa Inggris sangat sulit dipahami. |  |  |  |  |  |
| 14. | Saya tidak bisa membaca buku berbahasa <br> Inggris. |  |  |  |  |  |
| 15. | Pelajaran bahasa Inggris itu penting karena saya <br> berharap suatu hari dapat berkunjung ke luar <br> negeri yang masyarakatnya berbahasa Inggris. |  |  |  |  |  |
| 16. | Menguasai bahasa Inggris dengan baik dapat <br> membantu saya dalam mata pelajaran yang lain. |  |  |  |  |  |
| 17. | Saya mempunyai banyak pengetahuan ketika <br> belajar bahasa Inggris. |  |  |  |  |  |
| 18. | Pelajaran bahasa Inggris adalah bukan pelajaran <br> yang sangat sulit dibandingkan dengan pelajaran <br> yang lain. |  |  |  |  |  |
| 19. | Saya sangat senang dan tidak pernah bosan <br> belajar bahasa Inggris di kelas. |  |  |  |  |  |
| 20. | Saya sangat senang mempraktekkan kemampuan <br> bahasa Inggris saya dan saya tidak peduli <br> walaupun salah. Salah adalah proses dalam <br> belajar. |  |  |  |  |  |
| 21. | Saya senang ketika berkomunikasi dengan <br> menggunakan bahasa Inggris. |  |  |  |  |  |
| 22. | Belajar bahasa Inggris membuat saya <br> bersemangat untuk belajar. |  |  |  |  |  |
| 23. | Saya merasa cemas ketika berbicara dengan <br> menggunakan bahasa inggris. |  |  |  |  |  |
| 24. | Saya belajar bahasa Inggris agar lebih percaya <br> diri. |  |  |  |  |  |
| 25. | Saya tidak percaya diri berbicara bahasa Inggris. |  |  |  |  |  |

## Appendix 5

## Choose the correct answer by crossing A, B, C or D.

1. Ali : Hello, I'm Ali

Aisyah : Hi, I'm Aisyah. How about you?
Ali $\qquad$ thanks.
A. Hello
C. How are you
B. How do you do?
D. I am fine
2. $\mathrm{X} \quad$ : Good morning. How are you?

Y : Fine thanks.
X : Nice to meet you too.
A. Sure
C. Nice to meet you
B. Oh, Really
D. Thank you
3. Siska : Good night, Mom.

Mother : What are you doing?
Siska : I ...... television now.
A. Watching
C. Doing
B. Reading
D. Going
4. Mother : Ardi, Open the door please!

Ardi
A. Don't mention it
C. Ok sir, thank you
B. Yes, sir
D. I'm sorry Sir
5. Sani : Can I borrow your pencil, Please?

Santi : Sure. Here it is.
Sani : Thank you.
Santi : $\qquad$
A. I am sorry
C. Thank you very much
B. You'ar welcome
D. That's okay
6. $X \quad$ :Good morning. How are you? $Y$ : ........... .
A. I'm Fine
C. Hello
B. Good night
D. Good bye
7. Amir :Hi, Jane how are you?

Jane : I am fine thanks. How about you?
Amir $\qquad$
A. How do you do
C.I am fine too
B. Good morning
D. Very good, thanks
8. Pretty : Hi, I'm pretty

Rani : Hello, I'm Rani. Nice to meet you.
Pretty :
A. Nice to meet you too
C. It's a pleasure
B. It' s Okay
D. Thank you
9. Teacher : $\qquad$ in this room.
Andi : No, I will not smoke in this room.
A. Don't smoke
C. Don't eat
B. Don't be noisy
D. Don't cheat
10. Riko : Don't cheat in the class!

Mr. Rambe $\qquad$
A. Why
B. Ok Sir
C. Thank you
D. It's there
11. Teacher : Take your chair Jack!

Jack
:........Sir
A. Ok, Thanks
C. Excuse me
B. Don't like
D. Your welcome
12. Mr. Emir $\qquad$ Gilang : Thank you, sir.
A. Please, come in
C. Don't cheating
B. Don't be noisy
D. Don't smoking
13. Mother
: . $\qquad$
Siska : I will not speak aloud.
A. Don't be noisy!
C. Don't park!
B. Don't close the door!
D. Don't go there!
14. Father : Come in, please !

Hadi : .........
A. Don't mention it
C. All right thanks
B. You are welcome
D. Never mind
15. Anton : $\qquad$ away!
Tono : Okay.
A. Write
B. Go
C. Read
D. Speak
16. Mother: Close the door, Please!

Ani
Mom
A. I'm Sorry
C. Your welcome
B. Yes Mom
D. See you
17. Siti : Good morning, mom.

Mother : Morning Siti. Stop it!
Siti
: .............
A. Thank you
B. Ok, mom
C. It's there
D. Please
18. $X \quad: \ldots \ldots \ldots \ldots \ldots$............... some water, please!
$Y:$ Here you are.
A. Can
B. Told
C. Give
D. Help
19. Tia : Where is my pencil case?

Rina : .........
Tia : Thanks.
A. It's there
C. Here I am
B. Here you are
D. Let me see
20. Ratih : ............ is my schoolbag?

Rina : It's there
Ratih : Thanks.
A. What
B. How
C. Where
D. When
21. $X \quad$ : May I borrow your pen?
$Y \quad:$ Yes, of course.
$X \quad:$
A. No, thanks
B. Ok
C. Thank you
D. Please
22. Mrs. Roro : Yeni, this is your test report.

Yeni :Thank you, mum.
Mrs.Roro
: ..................
A. Ok. mum
C. I'm sorry, mum
B. You're welcome.
D. That's all right, mum
23. $X \quad:$ Pass me the an eraser, please?
$Y \quad:$ Sure. Here you are.
X :.............
$Y \quad:$ You are welcome.
A.Thanks a lot
C. Please
B. It's there
D. I'm sorry
24. Andi : Budi,........... I'm coming late. Budi : Never mind.
A. I'm sorry
C. Thank you
B. I'm fine
D. it's okay
25. Mother : Marisa, did you break the plate?

Marisa : Yes I did, I'm sorry Mom.
Mother :......
A. I'm sorry too
C. You are welcome
B. Don't mention it
D. That's all right
26. Putri : Are you sure?

Dina : Yes,
A. Please B. Fine
C.I am
D. I am not
27. Anti : .......you come yesterday?

Rika : Yes, I did.
A. Didn't
B. Do
C. Did
D. Don't
28. Rio : ..... you sure?

Jhon : Yes, I am.
A. Are
B. am
C. is
D. all right
29. $X \quad:$...... you like orange juice?
$Y \quad:$ Yes, I like.
A. What
B. Do
C. Did
D. Does
30. Ivan : Give me a piece of paper, please?

Rehan : Sure.
A. Here you are
C. Thank you
B. What is this
D.Please
31. Santi : I am sorry.

Afni : ...........
A. Sure
B. It's okay
C. Thanks
D. Good bye
32. $X \quad$ : Do you like coffee?
$Y \quad:$ I ........ like coffee.
A. Isn't
B. Doesn't
C. Didn't
D. Don't
33. $X \quad$ : Do you like sport?
$Y$ :..................
$X \quad:$ What sport do you like?
$Y \quad$ : I'm very fond of playing football
A. No, I don't
C. Yes, I'm fine
B. Yes, I like it a lot
D. I can't stand it
34. $X \quad:$.......... me the pencil, please!
$Y \quad$ : Sure. Here you are.
A. Can
B. Pass
C. Told
D. Help
35. Dina :............Congratulation. You won in the swimming contest.

Saleh : Thank you.
A. I'm sorry
C. Thanks a lot
B. Great!
D. Don' mention it
36. Dina : .........you won in the swimming contest.

Saleh : thank you
A. I'm sorry
C. Thanks a lot
B. Congratulation
D. Don't mention it
37. Anne : ..........on your success. You get the good score at English test.

Ria : Thank you.
Anne : You are welcome.
A. Thank you
C. I'm sorry
B. Never mind
D. Congratulation

Read the dialogue and answer the questions!
When Mr. Fadli taught in the classroom someone knocking the door.
Mr. Fadli : Yes, come in, please!
Anton :Excuseme sir. We have announcement for this class.
Mr. Fadli : Okay. Tell the announcemet to the class.
Anton : Good afternoon, guys,
Students : Good afternoon.
Anton :We are from Farewell Party Committee. We'd like to announce that Farewell Party will be held on 02 September 2015. Every class has to participate. Every class has to perform such as drama, stand up comedy, singing, or reading poetry. I think that's all.
Mr. Fadli : Any question.
Students : No, sir.
Mr. Fadli : In there any contribution or money to join the party?
Anton : No, sir. It's free.
Mr. Fadli : Good. Anything else.
Anton : No, sir. Thanks for the time sir.
Mr. Fadli : No problem.
38. What is the purpose of the dialogue?
A. To announce about the Farewell Party to students
B. There are many perform in the party dancing, singing, and drama
C. Mr. Fadli announce to students about Farewell Party
D. Mr. Fadli thaught i the classroom
39. Who announced the Farewell Party to students?
A. Mr. Fadli
C. Chairman Comittee
B. Students
D. Anton
40. When the Farewell party will be held?
A. 02 September 2015
B. 20 September 2015
C. 12 September 2015
D. 02 September 2005

Seller : Do you want to buy anything?
Dewi :Of course. I need an ounce of chilies, 1 kg tomatoes, an ounce of celery and a sack of salt.
Seller : Here you are.
Dewi : Do you have some onion?
Seller : We do have, miss. How many do you need?
Dewi : I need an ounce onion. That's enough.
Seller : The total cost is Rp 45.500,- miss.
Dewi : Here you are.
Seller : Thank you.
41. What are things the shopping list on Dewi's shopping list?
A. Dewi's shopping list, they are an once of chilies, 2 kg tomatoes, an ounce celery.
B. Dewi's shopping list, they are an once of chilies, 1 kg tomatoes, an ounce celery, a asck of salt, and an ounce onion.
C. Dewi don't buying anything
D. The total cost of Dewi's shopping is Rp 45.500 ,-
42. How much total cost on Dewi's shopping list?
A. Rp. 45.590,-
C. 45.500,-
B. Rp. 54.500,-
D. 55.500,-
43. How much onion does the writer want to buy?
A. One ounce
C. Three ounce
B. Two ounce
D. Four ounce
44. What the mean of sign?
A. Always smoking in area
B. Announcement of smoking
C. Information of smoking
D. To forbid smoking in this area

45. What the mean of the sentence on the picture?

A. This dog area
B. The dog don't walk in Muslim area
C. The dog must run in Muslim area
D. The dog not run in Muslim area
46. What the mean of the sign?

A. Don't stop in this area
B. Don't turn left
C. Don't turn right
D. Don't park in this area
47. "Take off your shoes, if you want to enter this room". What the mean of the instruction?
A. Don't take your shoes to enter this room.
B. You must use the shoes to enter this room.
C. Don't enter this room.
D. You must enter this room.
48. "Off your phone, if you in mosque". What the mean of the instruction?
A. Don't cheat in mosque
B. Must on you're the phone
C. To announce inactive the phone in mosque
D. Don't be noise in mosque
49. "Please, take the book on the rack neatly". What the mean of instruction?
A. To order take the book on the rack
B. Take the book on the table
C. To forbid take the book on the table
D. To order take the book on the table
50. What the mean of sign?
A. Announcement about the toilet
B. Information about the toilet
C. To forbid don't throw rubbish in toilet
D. Always throw rubbish in toilet
51. What kind of the text?
A. Instruction
C. Announcement
B. Shopping list
D. Congratulation

| Dear Anita |
| :--- |
| Congratulation on your success in the poetry reading competition. You are the |
| best. I am proud of you. |
|  |
|  |
|  |
|  |
| your friend |
| Harun |

52. What is the purpose of the text?
A. To tell how to congratulation on success
B. To explain Anita's success
C. To congratulation on Anita's success
53. What kind of the text?
A. A greeting card
C. A short message
B. A congratulation card
D. A birthday card
54. Who won the poetry reading competition?
A. Poetry competition
C.Anita
B. Harun
D. Anita and Harun

Fitri :Hello, Ani, have you read announcement?
ani :What about?
Fitri : I have just told by Erick via SMS that you had passed the national examination.
Ani :Oh, really
Fitri :Yes, you may read the SMS by your self, here you are.
Ani :Wow,.....thank you very much for telling me.
Fitri :Don't mention it.I congratulate on your graduation.
Ani :You are welcome. So where will you continue your study
Fitri :I still have no idea yet.
55. What is the purpose of the diaolgue?
A. Fitri congratulate to Ani on her graduation.
B. Fitri announce to Ani about national examination.
C. Congratulation for Ericks' graduation.
D. Announcement about national examination via SMS.
56. Who had passed the national examinaton?
A. Fitri
C. Ani
B. Erick
D. Fitri and Ani

## Announcement

To all students of grade VIIISMP N. 1 Bandung. This is an important announcement for you who is going for picnic to Bali. Please remember, we are going to leave Bandung tomorrow morning:

Day: Saturday
Date: 07 February 2015
Time: 07.00 a.m.
Place: School yard of SMP N. 1 Bandung
Please come before 7 or you'll be left. Don't forget to bring your camera and notebook to accomplish your traveling report.

> Head of Traveling Committee
> Nazril , S.Pd.
57. What kind of text?
A. Congratulation card
C. An apologize
B. An annoucement
D. An advertisement
58. What is the purpose of the text?
A. Going pienic to Bali.
B. Bring your camera and notebook.
C. Leave bandung tomorrow morning.
D. Holiday.
59. Who make an announcement?
A. Head of Traveling Committee
B. Headmaster
C. Teacher
D. Students
"School will close tomorrow since it's the WAISAK day."
60. Why the school close tomorrow?
A. Because of WAISAK day
C. Tomorrow is Sunday
B. The school holiday
D. The school close today

| - Some celery | $-1 / 4 \mathrm{~kg}$ carrot |
| :--- | :--- |
| -1 ounce garlic | $-1 / 4 \mathrm{~kg}$ tomato |
| -1 ounce onion | -1 pack salt |
|  |  |

61. What kind of text?
A. A food label
C. A short message
B. An advertisement
D. A shopping list
62. Which store will the writer not go to?
A. A bakery
C. A grocer
B. A poultry shop
D. A greengrocer
63. From the text above we know that the writer probably wants to cook...
A. Fruit salad
C. Chicken soup
B. Black forest
D. Chicken curry
64. How much garlic does the writer want to buy?
C. One ounce
C. Three ounce
D. Two ounce
D. Four ounce

Mrs. Anita want to make Banana Cake for her son,She needs to buy several things, here are the shopping list :

> 1 Kg of eggs
> $1 / 2 \mathrm{Kg}$ of flour
> $1 / 2 \mathrm{Kg}$ of butter
> $1 / 4 \mathrm{Kg}$ of sugar
> $1 / 2 \mathrm{Kg}$ of banana
> 2 packets of vanilla powder
65. How many butters in Mrs. Anits's shopping list?
A. $1^{11 / 2} \mathrm{Kg}$ eggs
B. $1 / 2 \mathrm{Kg}$ butter
C. $11 / 2 \mathrm{Kg}$ butter
D. $1 / 4$ Kgbutter
66. Which one is the true statement based on the text?
A. Mrs. Anita needs 1 Kg of sugar
B. Mrs. Anita needs $1 / 2 \mathrm{Kg}$ of banana
C. Mrs. Anita needs $11 / 2 \mathrm{Kg}$ of eggs
D. Mrs. Anita needs 2 Kg of cheese

Goal : How to make a cup of coffee
Material : We need water, sugar, spoon, glass and coffee
Steps : First, put a spoonful of coffee and three spoonfuls of sugar into the cup, second, pour the boiled water into the cup, then stir it well, at last, a cup of coffee is ready to be served.
67. What text tell about?
A. fried chicken
C. Sweet hot of tea
B. a cup o coffee
D. Juice
68. What kind of text?
A. Congratulation
C. Descriptive text
B. Procedure text
D. Announcement
69. What are materials need to make a cup of coffee?
A. Water, salt,spoon, glass and milk
B. Water, butter,spoon, glass, milk and coffee
C. Water, sugar, spoon, coffee, and glass
D. Water, sugar,spoon, plate and coffe
70. Arrange these jumbled sentence into the right paragraph!

1. add a spoonful of sugar
2. Now, your juice is ready to be served
3. First, cut a piece of pineapple
4. pour a half glass of water into a the blender.
5. Put some ice cubes into the blender
6. Then, put the pineapple into a blender
7. blend for several minutes
A. $3,5,1,4,6,7,2$
B. $3,5,4,1,6,7,2$
C. $3,1,5,6,4,2,7$
D. $3,6,4,1,5,7,2$

THE RIKO'S FAMILY
Mr. Riko is an American teacher, but he lives and works in Denpasar. He teaches English at SMP 8. He is very good teacher. His students like him.

His wife is an Indonesian. She comes from Medan. They have one son and one daughter. The children go to a primary school.

Mr. Riko's house is made of wood. It has five rooms, a kitchen, a bathroom, a living room and two bedrooms. Mr. Riko have a house maid to help Mrs. Riko to do the house work. The maid comes from Bantul.
71. What is the purpose of the text?
A. To tell how the Riko's Family
B. To describe the Riko's Family
C. To explain about Riko's Family
D. To entertain the Riko's Family
72. Where does the Riko's Family stay?
A. In Bantul
B. In Medan
C. In Denpasar
D.In America
73. Mr. Riko's house has....
A. A kitchen and a private room
C. A living room and a garage room
B. A living room and a bathroom
D. A bedroom and a prayer room
74. What kinds of the text?
A. Descriptive text
B. Recount text
C. Recount text
D. Explanation text
75. Arranged the jumbledwords into good sentence! on - success - Great!- your- congratulation

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

A. 3-4-1-5- 2
C. 3-5-1-2-4
B. 3-5-1-4-2
D. 4-3-2-1-5

Essay!
Answer the question with correct answer!

1. Choice a topic and write down a simple paragraph with your words!
> Your Self
> Your mother
> Your school
2. Mention five things you find in:
a. Your bag
b. Bedroom
c. Classroom
3. Arrange these jumbled sentence into the good sentences.
a. Whiteboard- please- the- clean.
b. Please- the- open- door.
4. What would you say to a friend: On his/her birthday and if she/he has got the best in class.

Padangsidimpuan, September 2015
Validator,

Sojuangon Rambe, S.s., M.Pd.
Nip. 197908152006041003

## Appendix 6

## Key Answer

1. D
2. C
3. A
4. B
5. B
6. A
7. C
8. A
9. B
10. B
11. A
12. A
13. A
14. C
15. B
16. B
17. C
18. D
19. A
20. C
21. C
22. B
23. A
24. A
25. A
26. C
27. C
28. A
29. B
30. C
31. B
32. D
33. B
34. B
35. B
36. B
37. D
38. A
39. C
40. A
41. B
42. C
43. B
44. B
45. C
46. C
47. B
48. B
49. A
50. C
51. A
52. C
53. B
54. C
55. B
56. C
57. B
58. A
59. A
60. A
61. D
62. A
63. C
64. A
65. B
66. B
67. B
68. B
69. C
70. B
71. B
72. C
73. B
74. A
75. B

Essay:

1. Your words
2. Your words
3. Clean the whiteboard, please! Open the door, please!
4. Your words

## Appendix 10

## Key Answer of the test

| 1. A | 18. A | 35. C |
| :---: | :---: | :---: |
| 2. C | 19. B | 36. A |
| 3. A | 20. D | 37. C |
| 4. A | 21. B | 38. B |
| 5. A | 22. B | 39. C |
| 6. A | 23. B | 40. B |
| 7. C | 24. D | 41. C |
| 8. B | 25. A | 42. A |
| 9. B | 26. D | 43. D |
| 10. A | 27. A | 44. A |
| 11. C | 28. B | 45. C |
| 12. C | 29. C | 46. B |
| 13. B | 30. A | 47. B |
| 14. A | 31. D | 48. C |
| 15. B | 32. B | 49. B |
| 16. C | 33. C | 50. C |
| 17. C | 34. A | 51. A |

Essay test:

1. Your words
2. Your words
3. Clean the whiteboard, please! Open the door, please!
4. Your words

|  | 1 |  |  |  |  | 5 | 6 | 7 |  |  | 10 |  | 12 | 13 | , | 15 | 16 | 17 | 18 | 11 | 20 | 21 | 2 | 23 |  |  |  |  |  |  | 0 | 31 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 |
| 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 11 | 1 | 1 | 1 | 1 |  |  |  |  |  | 1 |  |  |  | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| 3 | 1 | 1 | 1 | 1 | 10 | 0 | 1 | 1 | 1 | 11 | 1 | 0 | 1 | 1 |  |  |  |  |  | 0 |  | 0 |  | 0 | 1 | 1 | 1 |  | 1 | 1 | 1 | 0 |
| 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 11 | 1 | 0 | 1 |  |  |  |  |  |  |  |  |  |  |  | 0 | 0 | 0 | 0 | 1 |  |  | 0 |
| 5 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |  | 0 | 0 | 0 |  |  | 1 | 1 | 1 | 1 | 0 |  |  | 0 |
| 6 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 10 | 1 | 0 | 1 | 1 |  |  |  | 0 |  | 0 |  |  |  |  |  | 1 | 0 |  | 1 |  | 0 | 0 |
| 7 | 1 |  | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  | 0 |  |  | 0 |
| 8 | 1 | 1 | 10 | 0 | 10 | 0 | 1 | 1 | 1 | 11 | 1 | 0 | 1 | 1 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 9 | 1 | 1 | 11 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 |  |  |  | 0 |  |  |  |  | 0 |  |  |  |  |  | 1 |  |  | 0 |
| 10 | 1 |  |  | 0 | 1 | 1 | 1 | 1 | 1 | 11 | 0 | 0 | 1 | 1 |  |  |  |  |  |  |  |  |  |  |  |  | 0 |  | 1 |  |  | 0 |
| 1 | 1 | 1 | 11 | 1 | 0 | 1 | 1 | 1 | 0 | 01 | 1 | 0 | 0 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  | 0 |
| $12$ | 1 |  | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| 13 | 1 |  |  | 0 | 10 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 1 |  | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 |  |  |  | 1 |  |  |  |  | 0 |  |  |  |  | 0 |
| 15 | 1 |  | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |  | 0 | 1 |  |  |  | 1 |  |  |  |  |  |  |  |  |  | 0 |
|  | 1 |  | 1 | 1 | 10 | 0 | 1 | 1 | 1 | 110 | 0 | 0 | 1 | 1 | 1 |  | 0 | 1 |  |  |  | 0 |  |  |  |  |  | 0 | 1 |  | 0 | 0 |
|  | 0 |  | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |  |  | 1 | 0 |  |  | 1 |  |  | 0 |  | 0 |  |  |  |  | 0 |
|  | 1 |  |  | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0 | 0 |
|  | 1 | 1 | 11 | 1 | 10 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| 20 | 1 |  | 0 | 1 | 1 |  | 1 | 1 | 0 | 00 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 |  |  | 0 | 1 | 0 | 0 | 0 | 0 | 0 |  |  |  | 1 | 0 |
| 2 | 1 | 1 | 11 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 |  |  |  | 1 | 0 |  |  |  | 0 |  |  |  | 0 | 1 |
| 22 | 1 |  | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |  | 0 | 0 | 0 | 1 |  | 1 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23 | 1 |  | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |  | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
|  | 1 |  |  | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |  |  | 0 | 0 | 1 |  |  | 0 | 0 | 0 |  | 0 |  |  | 0 |
|  | 1 |  |  | 10 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 |  | 0 |  |  |  |  | 0 |  |  | 0 |  |  |  |  |  | 0 | 0 |
|  | 1 |  |  | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |  | 0 |  | 0 | 0 | 0 |  |  |  |  | 0 | 0 | 0 | 0 |
|  | 1 |  |  | 1 |  |  | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 |  | 0 |  | 0 |  | 0 |  | 0 |  |  | 0 | 0 |  | 0 | 0 |  | 0 |  |
|  | 1 |  |  | 10 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |  | 0 | 0 | 0 | 0 | 0 | 0 |  |  |  |  |  |  |  |  |  |  |
|  | 0 |  | 0 | 10 | 0 | 0 | 1 | 1 | 0 | 10 | 0 | 1 | 1 | 0 | 0 |  |  |  |  |  |  |  |  |  |  |  | 0 |  |  | 0 | 0 |  |
| 30 | 1 |  | 1 | 1 | 10 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |  |  | 0 |  |  |  | 1 |  | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |
| 3 | 1 |  |  | 1 | 10 | 0 | 1 | 1 | 1 | 10 | 0 | 0 | 1 | 0 | 1 | 1 |  | 0 |  |  |  | 0 | 0 | 1 | 0 |  |  | 0 |  |  | 1 | 0 |
|  | 1 |  |  | 0 | 10 | 0 | 0 | 1 | 1 | 10 | 0 | 0 | 0 | 0 | 1 |  |  | 0 | 0 | 0 |  | 1 |  | 1 | 0 |  | 0 | 0 |  |  | 1 | 0 |
|  | 1 |  |  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
|  | 1 |  |  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |  | 1 |  | 0 | 0 | 0 | 0 |
| 35 | 1 |  |  | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |  | 1 |  |  | 0 |  |  |  |  |  | 0 | 0 |
|  | 1 |  |  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |  | 0 | 0 |  |  |  |  |  | 1 |  | 0 | 0 |  |  |  | 0 |  | 1 | 0 |
| 3 | 1 |  | 11 | 1 | 10 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 |  | 0 |  |  |  | 1 |  |  | 0 | 0 | 0 |  |  | 0 | 1 | 0 |
| 38 | 1 |  |  | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 |  |  | 0 | 0 | 1 | 0 | 0 |  | 0 | 0 |  |  |  | 1 | 0 |
| 39 | 1 |  |  | 1 | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |  | 0 |  |  | 1 |  | 0 |  |  |  |  |  | 0 | 1 | 1 |
|  | 1 |  |  | 1 | 1 |  | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 |
| 41 | 1 | 1 |  | 1 | 10 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| 42 | 1 |  | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |  |  | 1 |  | 1 | 1 |  |  | 1 | 1 |
| 43 | 1 |  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  | 1 | 1 | 1 |  | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 44 | 0 |  | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 |
| 45 | 1 |  |  |  |  |  | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 |  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  | 0 | 1 |
| 46 |  |  |  |  |  |  |  |  |  |  | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |  | 0 | 1 | 1 | 0 | 0 |  |  |  |  |  | 1 | 1 |


| 47 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | ) | 0 |  | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 48 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 10 | 0 |  | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 |
| 49 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |  | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 |
| 50 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | - |  | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |


| 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 |
| 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 |
| 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 |
| 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 |
| 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 |
| 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 |
| 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |
| 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 |
| 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |  |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |


| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

$\qquad$

| 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | Y | $\mathbf{Y}^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 64 | 4096 |
| 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 62 | 3844 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 64 | 4096 |
| 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 38 | 1444 |
| 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 33 | 1089 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 53 | 2809 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 56 | 3136 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 61 | 3721 |
| 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 54 | 2916 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 59 | 3481 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 55 | 3025 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 47 | 2209 |
| 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 22 | 484 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 64 | 4096 |
| 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 61 | 3721 |
| 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 60 | 3600 |
| 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 46 | 2116 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 60 | 3600 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 66 | 4356 |
| 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 41 | 1681 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 61 | 3721 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 40 | 1600 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 40 | 1600 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 44 | 1936 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 50 | 2500 |
| 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 44 | 1936 |
| 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 41 | 1681 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 48 | 2304 |
| 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 47 | 2209 |
| 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 47 | 2209 |
| 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 43 | 1849 |
| 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 41 | 1681 |
| 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 48 | 2304 |
| 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 50 | 2500 |
| 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 45 | 2025 |
| 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 41 | 1681 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 39 | 1521 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 39 | 1521 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 39 | 1521 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 47 | 2209 |
| 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 42 | 1764 |
| 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 60 | 3600 |
| 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 55 | 3025 |
| 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 32 | 1024 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 62 | 3844 |
| 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 56 | 3136 |


| 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 57 | 3249 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 52 | 2704 |
| 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 48 | 2304 |
| 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 65 | 4225 |


| No. | X | Y | $\mathrm{X}^{2}$ | $\mathrm{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 166 | 64 | 27556 | 4096 | 10624 |
| 2 | 152 | 62 | 23104 | 3844 | 9424 |
| 3 | 157 | 64 | 24649 | 4096 | 10048 |
| 4 | 147 | 38 | 21609 | 1444 | 5586 |
| 5 | 170 | 33 | 28900 | 1089 | 5610 |
| 6 | 152 | 53 | 23104 | 2809 | 8056 |
| 7 | 128 | 56 | 16384 | 3136 | 7168 |
| 8 | 162 | 61 | 26244 | 3721 | 9882 |
| 9 | 152 | 54 | 23104 | 2916 | 8208 |
| 10 | 166 | 59 | 27556 | 3481 | 9794 |
| 11 | 138 | 55 | 19044 | 3025 | 7590 |
| 12 | 165 | 47 | 27225 | 2209 | 7755 |
| 13 | 156 | 22 | 24336 | 484 | 3432 |
| 14 | 144 | 64 | 20736 | 4096 | 9216 |
| 15 | 181 | 61 | 32761 | 3721 | 11041 |
| 16 | 137 | 60 | 18769 | 3600 | 8220 |
| 17 | 156 | 46 | 24336 | 2116 | 7176 |
| 18 | 132 | 60 | 17424 | 3600 | 7920 |
| 19 | 151 | 66 | 22801 | 4356 | 9966 |
| 20 | 160 | 41 | 25600 | 1681 | 6560 |
| 21 | 128 | 61 | 16384 | 3721 | 7808 |
| 22 | 153 | 40 | 23409 | 1600 | 6120 |
| 23 | 162 | 40 | 26244 | 1600 | 6480 |
| 24 | 132 | 44 | 17424 | 1936 | 5808 |
| 25 | 139 | 50 | 19321 | 2500 | 6950 |
| 26 | 149 | 44 | 22201 | 1936 | 6556 |
| 27 | 158 | 41 | 24964 | 1681 | 6478 |
| 28 | 168 | 48 | 28224 | 2304 | 8064 |
| 29 | 149 | 47 | 22201 | 2209 | 7003 |
| 30 | 156 | 47 | 24336 | 2209 | 7332 |
| 31 | 166 | 43 | 27556 | 1849 | 7138 |
| 32 | 176 | 41 | 30976 | 1681 | 7216 |
| 33 | 194 | 48 | 37636 | 2304 | 9312 |
| 34 | 176 | 50 | 30976 | 2500 | 8800 |
| 35 | 187 | 45 | 34969 | 2025 | 8415 |
| 36 | 153 | 41 | 23409 | 1681 | 6273 |
| 37 | 163 | 39 | 26569 | 1521 | 6357 |
| 38 | 147 | 39 | 21609 | 1521 | 5733 |
| 39 | 141 | 39 | 19881 | 1521 | 5499 |
| 40 | 161 | 47 | 25921 | 2209 | 7567 |
| 41 | 161 | 42 | 25921 | 1764 | 6762 |
| 43 | 141 | 60 | 19881 | 3600 | 8460 |
| 145 | 55 | 21025 | 3025 | 7975 |  |

空

| 44 | 155 | 32 | 24025 | 1024 | 4960 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 45 | 193 | 62 | 37249 | 3844 | 11966 |
| 46 | 203 | 56 | 41209 | 3136 | 11368 |
| 47 | 145 | 57 | 21025 | 3249 | 8265 |
| 48 | 147 | 52 | 21609 | 2704 | 7644 |
| 49 | 168 | 48 | 28224 | 2304 | 8064 |
| 50 | 156 | 65 | 24336 | 4225 | 10140 |
| 7844 |  |  |  |  | 2489 |
| 61528336 | 6195121 |  |  |  |  |


| 19489450 | 19523716 | -34266 | 0.837 | 0.700569 |
| ---: | ---: | ---: | ---: | ---: |
| 62197800 | 61528336 | 669464 |  | 70.0569 |
| 6445150 | 6195121 | 250029 |  |  |
|  |  | 1673854111 |  |  |
|  | 40912.7622 |  |  |  |
|  | -0.83753817 |  |  |  |

## Appendix 8

## Result of test validity

| No. | $\mathbf{r}_{\text {count }}$ | $\mathbf{r}_{\text {table }}$ | Interpretation |
| :---: | :---: | :---: | :---: |
| 1. | 0.205 | 0.284 | Invalid |
| 2. | 0.042 | 0.284 | Invalid |
| 3. | 0.066 | 0.284 | Invalid |
| 4. | 0.023 | 0.284 | Invalid |
| 5. | 0.147 | 0.284 | Invalid |
| 6. | 0.379 | 0.284 | Valid |
| 7. | 0.354 | 0.284 | Valid |
| 8. | 0.467 | 0.284 | Valid |
| 9. | 0.384 | 0.284 | Valid |
| 10. | 0.100 | 0.284 | Invalid |
| 11. | 0.001 | 0.284 | Invalid |
| 12. | 0.470 | 0.284 | Valid |
| 13. | 0.280 | 0.284 | Valid |
| 14. | 0.288 | 0.284 | Valid |
| 15. | 0.522 | 0.284 | Valid |
| 16. | 0.167 | 0.284 | Invalid |
| 17. | 0.446 | 0.284 | Valid |
| 18. | 0.151 | 0.284 | Invalid |
| 19. | 0.302 | 0.284 | Valid |
| 20. | 0.343 | 0.284 | Valid |
| 21. | 0.304 | 0.284 | Valid |
| 22. | 0.488 | 0.284 | Valid |
| 23. | 0.236 | 0.284 | Invalid |
| 24. | 0.488 | 0.284 | Valid |
| 25. | 0.571 | 0.284 | Valid |
| 26. | 0.382 | 0.284 | Valid |
| 27. | 0.474 | 0.284 | Valid |
| 28. | 0.413 | 0.284 | Valid |
| 29. | 0.553 | 0.284 | Valid |
| 30. | 0.046 | 0.284 | Invalid |
| 31. | 0.040 | 0.284 | Invalid |
| 32. | 0.454 | 0.284 | Valid |
| 33. | 0.330 | 0.284 | Valid |
| 34. | 0.037 | 0.284 | Invalid |
| 35. | 0.419 | 0.284 | Valid |
| 36. | 0.403 | 0.284 | Valid |
| 37. | 0.279 | 0.284 | Valid |
| 38. | 0.495 | 0.284 | Valid |
| 39. | 0.383 | 0.284 | Valid |
| 40. | 0.335 | 0.284 | Valid |


| 41. | 0.466 | 0.284 | Valid |
| :---: | :---: | :---: | :---: |
| 42. | 0.319 | 0.284 | Valid |
| 43. | 0.578 | 0.284 | Valid |
| 44. | 0.373 | 0.284 | Valid |
| 45. | 0.386 | 0.284 | Valid |
| 46. | 0.540 | 0.284 | Valid |
| 47. | 0.431 | 0.284 | Valid |
| 48. | 0.510 | 0.284 | Valid |
| 49. | 0.499 | 0.284 | Valid |
| 50. | 0.023 | 0.284 | Invalid |
| 51. | 0.146 | 0.284 | Invalid |
| 52. | 0.409 | 0.284 | Valid |
| 53. | 0.334 | 0.284 | Valid |
| 54. | 0.324 | 0.284 | Valid |
| 55. | 0.343 | 0.284 | Valid |
| 56. | 0.449 | 0.284 | Valid |
| 57. | 0.118 | 0.284 | Invalid |
| 58. | 0.213 | 0.284 | Invalid |
| 59. | 0.169 | 0.284 | Invalid |
| 60. | 0.357 | 0.284 | Valid |
| 61. | 0.359 | 0.284 | Valid |
| 62. | 0.339 | 0.284 | Valid |
| 63. | 0.279 | 0.284 | Valid |
| 64. | 0.250 | 0.284 | Invalid |
| 65. | 0.261 | 0.284 | Invalid |
| 66. | 0.013 | 0.284 | Invalid |
| 67. | 0.330 | 0.284 | Valid |
| 68. | 0.312 | 0.284 | Valid |
| 69. | 0.457 | 0.284 | Valid |
| 70. | 0.222 | 0.284 | Invalid |
| 71. | 0.307 | 0.284 | Valid |
| 72. | 0.369 | 0.284 | Valid |
| 73. | 0.210 | 0.284 | Invalid |
| 74. | 0.414 | 0.284 | Valid |
| 75. | 0.274 | 0.284 | Invalid |
|  |  |  |  |

## Appendix 9

## Choose the correct answer by crossing $\mathbf{A}, \mathrm{B}, \mathrm{C}$ or $\mathbf{D}$.

1. $X \quad$ :Good morning. How are you?
$Y$ : $\qquad$
A. Fine thanks
C. Hello
B. Good night
D. Good bye
2. Amir :Hi, Jane how are you?

Jane : I am fine thanks. How about you?
Amir $\qquad$
A. How do you do
C.I am fine too
B. Good morning
D. Very good, thanks
3. Pretty : Hi, I'm pretty

Rani : Hello, I'm Rani. Nice to meet you.
Pretty :
A. Nice to meet you too
C. It's a pleasure
B. It' s Okay
D. Thank you
4. Teacher $\qquad$ in this room.
Andi : No, I will not smoke in this room.
A. Don't smoke
C. Don't eat
B. Don't be noisy
D. Don't cheat
5. Mr. Emir $\qquad$
Gilang : Thank you, sir.
A. Please, come in
C. Don't cheating
B. Don't be noisy
D. Don't smoking
6. Mother $\qquad$ .!

Siska : I will not speak aloud.
A. Don't be noisy!
C. Don't park!
B. Don't close the door!
D. Don't go there!
7. Father : Come in, please !

Hadi : .........
A. Don't mention it
C. All right thanks
B. You are welcome
D. Never mind
8. Anton : $\qquad$ away!
Tono : Okay.
A. Write
B. Go
C. Read
D. Speak
9. Siti : Good morning, mom.

Mother : Morning Siti. Stop it!
A. Thank you
B. Ok, mom
C. It's there
D. Please
10. Tia : Where is my pencil case?

Rina : $\qquad$
Tia : Thanks.
A. It's there
C. Here I am
B. Here you are
D. Let me see
11. Ratih : ............ is my schoolbag?

Rina : It's there
Ratih : Thanks.
A. What
B. How
C. Where
D. When
12. $X \quad$ : May I borrow your pen?
$Y \quad:$ Yes, of course.
X : .............
A. No, thanks
B. Ok
C. Thank you
D. Please
13. Mrs. Roro : Yeni, this is your test report.

Yeni :Thank you, mum.
Mrs.Roro
A. Ok. mum
C. I'm sorry, mum
B. You're welcome.
D. That's all right, mum
14. Andi : Budi,........... I'm coming late.

Budi : Never mind.
A. I'm sorry
C. Thank you
B. I'm fine
D. it's okay
15. Mother : Marisa, did you break the plate?

Marisa : Yes I did, I'm sorry Mom.
Mother :......
A. I'm sorry too
C. You are welcome
B. Don't mention it
D. That's all right
16. Putri : Are you sure?

Dina : Yes,
A. Please
B. Fine
C.I am
D. I am not
17. Anti : .......you come yesterday?

Rika : Yes, I did.
A. Didn't
B. Do
C. Did
D. Don't
18. Rio : ..... you sure?

Jhon : Yes, I am.
A. Are
B. am
C. is
D. all right
19. $X \quad: . . . .$. you like orange juice?
$Y \quad:$ Yes, I like.
A. What
B. Do
C. Did
D. Does
20. $X \quad$ : Do you like coffee?
$Y \quad:$ I ........ like coffee.
A. Isn't
B. Doesn't
C. Didn't
D. Don't
21. $X \quad$ : Do you like sport?
$Y \quad: . . . . . . . . . . . . .$.
$X \quad:$ What sport do you like?
$Y \quad$ : I'm very fond of playing football
A. No, I don't
C. Yes, I'm fine
B. Yes, I like it a lot
D. I can't stand it
22. Dina :............Congratulation. You won in the swimming contest.

Saleh : Thank you.
A. I'm sorry
C. Thanks a lot
B. Great!
D. Don' mention it
23. Dina : .........you won in the swimming contest.

Saleh : thank you
A. I'm sorry
C. Thanks a lot
B. Congratulation
D. Don't mention it
24. Anne : $\qquad$ .on your success. You get the good score at English test.

Ria : Thank you.
Anne : You are welcome.
A. Thank you
C. I'm sorry
B. Never mind
D. Congratulation

## Read the dialogue and answer the questions!

When Mr. Fadli taught in the classroom someone knocking the door.
Mr. Fadli : Yes, come in, please!
Anton :Excuseme sir. We have announcement for this class.
Mr. Fadli : Okay. Tell the announcemet to the class.
Anton : Good afternoon, guys,
Students : Good afternoon.
Anton $\quad$ We are from Farewell Party Committee. We'd like to announce that Farewell Party will be held on 02 September 2015. Every class has to participate. Every class has to perform such as drama, stand up comedy, singing, or reading poetry. I think that's all.

Mr. Fadli : Any question.
Students : No, sir.
Mr. Fadli : In there any contribution or money to join the party?
Anton : No, sir. It's free.
Mr. Fadli : Good. Anything else.
Anton : No, sir. Thanks for the time sir.
Mr. Fadli : No problem.
25. What is the purpose of the dialogue?
A. To announce about the Farewell Party to students
B. There are many perform in the party dancing, singing, and drama
C. Mr. Fadli announce to students about Farewell Party
D. Mr. Fadli thaught i the classroom
26. Who announced the Farewell Party to students?
A. Mr. Fadli
C. Chairman Comittee
B. Students
D. Anton
27. When the Farewell party will be held?
A. 02 September 2015
B. 20 September 2015
C. 12 September 2015
D. 02 September 2005

Seller : Do you want to buy anything?
Dewi :Of course. I need an ounce of chilies, 1 kg tomatoes, an ounce of celery and a sack of salt.
Seller : Here you are.
Dewi : Do you have some onion?
Seller : We do have, miss. How many do you need?
Dewi : I need an ounce onion. That's enough.
Seller : The total cost is Rp 45.500,- miss.
Dewi : Here you are.
Seller : Thank you.
28. What are things the shopping list on Dewi's shopping list?
A. Dewi's shopping list, they are an once of chilies, 2 kg tomatoes, an ounce celery.
B. Dewi's shopping list, they are an once of chilies, 1 kg tomatoes, an ounce celery, a asck of salt, and an ounce onion.
C. Dewi don't buying anything
D. The total cost of Dewi's shopping is Rp 45.500,-
29. How much total cost on Dewi's shopping list?
A. Rp. 45.590,-
C. 45.500,-
B. Rp. 54.500,-
D. 55.500,-
30. How much onion does the writer want to buy?
A. One ounce
C. Three ounce
B. Two ounce
D. Four ounce
31. What the mean of sign?
A. Always smoking in area
B. Announcement of smoking
C. Information of smoking
D. To forbid smoking in this area

32. What the mean of the sentence on the picture?

A. This dog area
B. The dog don't walk in Muslim area
C. The dog must run in Muslim area
D. The dog not run in Muslim area
33. What the mean of the sign?

A. Don't stop in this area
B. Don't turn left
C. Don't turn right
D. Don't park in this area
34. "Take off your shoes, if you want to enter this room". What the mean of the instruction?
A. Don't take your shoes to enter this room.
B. You must use the shoes to enter this room.
C. Don't enter this room.
D. You must enter this room.
35. "Off your phone, if you in mosque". What the mean of the instruction?
a. Don't cheat in mosque
b. Must on you're the phone
c. To announce inactive the phone in mosque
d. Don't be noise in mosque
36. "Please, take the book on the rack neatly". What the mean of instruction?
A. To order take the book on the rack
B. Take the book on the table
C. To forbid take the book on the table
D. To order take the book on the table

## Dear Anita

Congratulation on your success in the poetry reading competition. You are the best. I am proud of you.
37. What is the purpose of the text?
A. To tell how to congratulation on success
B. To explain Anita's success
C. To congratulation on Anita's success
38. What kind of the text?
A. A greeting card
C. A short message
B. A congratulation card
D. A birthday card
39. Who won the poetry reading competition?
A. Poetry competition
C.Anita
B. Harun
D. Anita and Harun

Fitri :Hello, Ani, have you read announcement?
ani :What about?
Fitri : I have just told by Erick via SMS that you had passed the national examination.
Ani :Oh, really
Fitri :Yes, you may read the SMS by your self, here you are.
Ani :Wow,.....thank you very much for telling me.
Fitri :Don't mention it.I congratulate on your graduation.
Ani :You are welcome. So where will you continue your study
Fitri :I still have no idea yet.
40. What is the purpose of the diaolgue?
A. Fitri congratulate to Ani on her graduation.
B. Fitri announce to Ani about national examination.
C. Congratulation for Ericks' graduation.
D. Announcement about national examination via SMS.
41. Who had passed the national examinaton?
A. Fitri
C. Ani
B. Erick
D. Fitri and Ani
"School will close tomorrow since it's the WAISAK day."
42. Why the school close tomorrow?
A. Because of WAISAK day
C. Tomorrow is Sunday

## B. The school holiday

D. The school close today

| - Some celery | $-1 / 4 \mathrm{~kg}$ carrot |
| :--- | :--- |
| -1 ounce garlic | $-1 / 4 \mathrm{~kg}$ tomato |
| -1 ounce onion | -1 pack salt |
|  |  |

43. What kind of text?
A. A food label
C. A short message
B. An advertisement
D. A shopping list
44. Which store will the writer not go to?
A. A bakery
C. A grocer
B. A poultry shop
D. A greengrocer
45. From the text above we know that the writer probably wants to cook...
A. Fruit salad
C. Chicken soup
B. Black forest
D. Chicken curry

Goal : How to make a cup of coffee
Material : We need water, sugar,spoon, glass and coffee
Steps : First, put a spoonful of coffee and three spoonfuls of sugar into the cup, Second, pour the boiled water into the cup, then stir it well, At last, a cup of coffee is ready to be served.
46. What text tell about?
A. fried chicken
C. Sweet hot of tea
B. a cup o coffee
D. Juice
47. What kind of text?
A. Congratulation
C. Descriptive text
B. Procedure text
D. Announcement
48. What are materials need to make a cup of coffee?
A. Water, salt,spoon, glass and milk
B. Water, butter,spoon, glass, milk and coffee
C. Water, sugar, spoon, coffee, and glass
D. Water, sugar,spoon, plate and coffe

THE RIKO'S FAMILY
Mr. Riko is an American teacher, but he lives and works in Denpasar. He teaches English at SMP 8. He is very good teacher. His students like him.

His wife is an Indonesian. She comes from Medan. They have one son and one daughter. The children go to a primary school.

Mr. Riko's house is made of wood. It has five rooms, a kitchen, a bathroom, a living room and two bedrooms. Mr. Riko have a house maid to help Mrs. Riko to do the house work. The maid comes from Bantul.
49. What is the purpose of the text?
A. To tell how the Riko's Family
B. To describe the Riko's Family
C. To explain about Riko's Family
D. To entertain the Riko's Family
50. Where does the Riko's Family stay?
A. In Bantul
B. In Medan
C. In Denpasar
D.In America
51. What kinds of the text?
a. Descriptive text
C. Recount text
b. Explanation text
D. Procedure text

## Essay!

Answer the question with correct answer!

1. Choice a topic and write down a simple paragraph with your words!
$>$ Your Self
$>$ Your mother
> Your school
2. Mention five things you find in:
a. Your bag
b. Bedroom
c. Classroom
3. Arrange these jumbled sentence into the good sentences.
a. Whiteboard- please- the- clean.
b. Please- the- open- door.
4. What would you say to a friend: On his/her birthday and if she/he has got the best in class.

## Appendix 11

Table 1
The result of variable $X$ and $Y$ of Validity

| No. | X | Y | $\mathrm{X}^{2}$ | $\mathrm{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 166 | 64 | 27556 | 4096 | 10624 |
| 2 | 152 | 62 | 23104 | 3844 | 9424 |
| 3 | 157 | 64 | 24649 | 4096 | 10048 |
| 4 | 147 | 38 | 21609 | 1444 | 5586 |
| 5 | 170 | 33 | 28900 | 1089 | 5610 |
| 6 | 152 | 53 | 23104 | 2809 | 8056 |
| 7 | 128 | 56 | 16384 | 3136 | 7168 |
| 8 | 162 | 61 | 26244 | 3721 | 9882 |
| 9 | 152 | 54 | 23104 | 2916 | 8208 |
| 10 | 166 | 59 | 27556 | 3481 | 9794 |
| 11 | 138 | 55 | 19044 | 3025 | 7590 |
| 12 | 165 | 47 | 27225 | 2209 | 7755 |
| 13 | 156 | 22 | 24336 | 484 | 3432 |
| 14 | 144 | 64 | 20736 | 4096 | 9216 |
| 15 | 181 | 61 | 32761 | 3721 | 11041 |
| 16 | 137 | 60 | 18769 | 3600 | 8220 |
| 17 | 156 | 46 | 24336 | 2116 | 7176 |
| 18 | 132 | 60 | 17424 | 3600 | 7920 |
| 19 | 151 | 66 | 22801 | 4356 | 9966 |
| 20 | 160 | 41 | 25600 | 1681 | 6560 |
| 21 | 128 | 61 | 16384 | 3721 | 7808 |
| 22 | 153 | 40 | 23409 | 1600 | 6120 |
| 23 | 162 | 40 | 26244 | 1600 | 6480 |
| 24 | 132 | 44 | 17424 | 1936 | 5808 |
| 25 | 139 | 50 | 19321 | 2500 | 6950 |
| 26 | 149 | 44 | 22201 | 1936 | 6556 |
| 27 | 158 | 41 | 24964 | 1681 | 6478 |
| 28 | 168 | 48 | 28224 | 2304 | 8064 |
| 29 | 149 | 47 | 22201 | 2209 | 7003 |
| 30 | 156 | 47 | 24336 | 2209 | 7332 |
| 31 | 166 | 43 | 27556 | 1849 | 7138 |
| 32 | 176 | 41 | 30976 | 1681 | 7216 |
| 33 | 194 | 48 | 37636 | 2304 | 9312 |
| 34 | 176 | 50 | 30976 | 2500 | 8800 |


| 35 | 187 | 45 | 34969 | 2025 | 8415 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 36 | 153 | 41 | 23409 | 1681 | 6273 |
| 37 | 163 | 39 | 26569 | 1521 | 6357 |
| 38 | 147 | 39 | 21609 | 1521 | 5733 |
| 39 | 141 | 39 | 19881 | 1521 | 5499 |
| 40 | 161 | 47 | 25921 | 2209 | 7567 |
| 41 | 161 | 42 | 25921 | 1764 | 6762 |
| 42 | 141 | 60 | 19881 | 3600 | 8460 |
| 43 | 145 | 55 | 21025 | 3025 | 7975 |
| 44 | 155 | 32 | 24025 | 1024 | 4960 |
| 45 | 193 | 62 | 37249 | 3844 | 11966 |
| 46 | 203 | 56 | 41209 | 3136 | 11368 |
| 47 | 145 | 57 | 21025 | 3249 | 8265 |
| 48 | 147 | 52 | 21609 | 2704 | 7644 |
| 49 | 168 | 48 | 28224 | 2304 | 8064 |
| 50 | $\mathbf{1 5 6}$ | 65 | $\mathbf{2}^{24336}$ | 4225 | 10140 |
| Total | $\sum \boldsymbol{X} \mathbf{7 8 4 4}$ | $\sum \boldsymbol{Y} \mathbf{2 4 8 9}$ | $\sum \mathbf{X}^{2} \mathbf{1 2 4 3 9 5 6}$ | $\sum \mathrm{X}^{2} \mathbf{1 2 8 9 0 3}$ | $\sum \boldsymbol{X Y 3 8 9 7 8 9}$ |

## Appendix 12

## The Calculation of Coefficient Correlation

$$
\begin{aligned}
& r_{x y}=\frac{N \sum X Y-\left(\sum X\right)\left(\sum Y\right)}{\sqrt{\left.\left\{N \sum X^{2}-\left(\sum(X)^{2}\right)\right\} N \sum Y^{2}-\left(\sum(Y)^{2}\right)\right\}}} \\
& r_{x y}=\frac{50(389789)-(7844) \cdot(2489)}{\sqrt{\left.\left\{(50) \cdot(1243956)-(7844)^{2}\right\}(50) \cdot 128903-(2489)^{2}\right\}}} \\
& r_{x y}=\frac{19523716-19489450}{\sqrt{\{62197800-61528336\} 6445150-6195121\}}}=\frac{34266}{\sqrt{669464-250029}} \\
& \frac{34266}{\sqrt{1673854}} \quad \frac{34266}{4091676}=0.837
\end{aligned}
$$

The contribution of variables X and Y :

$$
\begin{aligned}
K P= & r^{2} \times 100 \% K P=r^{2} \times 100 \% \\
& 0.837^{2} \times 100 \%=70.05 \%
\end{aligned}
$$

The contribution of variables X and Y is $70.05 \%$. So, the remainder it is 29.95 determine by another variables.

## Appendix 15

The result of Questionnaire (X)

| Name | Number of item |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X | $\mathrm{X}^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |  |  |
| AA | 5 | 5 | 4 | 4 | 5 | 5 | 4 | 4 | 5 | 4 | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 1 | 4 | 4 | 4 | 5 | 4 | 1 | 1 | 94 | 8836 |
| AJ | 3 | 3 | 2 | 2 | 2 | 4 | 4 | 3 | 5 | 5 | 3 | 3 | 5 | 5 | 3 | 4 | 3 | 3 | 4 | 2 | 5 | 3 | 4 | 3 | 4 | 87 | 7569 |
| AM | 2 | 3 | 3 | 5 | 3 | 2 | 2 | 3 | 3 | 3 | 1 | 2 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 2 | 2 | 1 | 3 | 1 | 1 | 60 | 3600 |
| AS | 5 | 4 | 4 | 4 | 5 | 3 | 2 | 5 | 4 | 5 | 1 | 2 | 5 | 4 | 3 | 4 | 4 | 1 | 5 | 4 | 5 | 4 | 2 | 4 | 4 | 93 | 8649 |
| AR | 5 | 4 | 5 | 5 | 4 | 5 | 3 | 3 | 5 | 4 | 2 | 2 | 3 | 4 | 4 | 3 | 3 | 2 | 5 | 5 | 4 | 3 | 2 | 4 | 5 | 94 | 8836 |
| AU | 5 | 4 | 4 | 4 | 3 | 4 | 3 | 4 | 4 | 3 | 2 | 4 | 5 | 5 | 4 | 2 | 4 | 3 | 3 | 4 | 2 | 3 | 2 | 4 | 2 | 87 | 7569 |
| CM | 3 | 1 | 4 | 3 | 4 | 3 | 2 | 4 | 4 | 5 | 1 | 4 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 1 | 1 | 70 | 4900 |
| DC | 5 | 4 | 2 | 4 | 2 | 3 | 3 | 4 | 3 | 3 | 2 | 4 | 3 | 3 | 2 | 2 | 3 | 3 | 4 | 3 | 1 | 1 | 1 | 4 | 1 | 70 | 4900 |
| DH | 2 | 3 | 4 | 3 | 2 | 2 | 2 | 3 | 2 | 1 | 3 | 3 | 4 | 3 | 1 | 2 | 2 | 4 | 2 | 1 | 3 | 2 | 4 | 1 | 1 | 60 | 3600 |
| DM | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 1 | 3 | 3 | 3 | 2 | 2 | 2 | 1 | 3 | 2 | 2 | 1 | 1 | 65 | 4225 |
| DS | 5 | 3 | 1 | 3 | 2 | 2 | 4 | 3 | 3 | 2 | 1 | 1 | 2 | 2 | 3 | 2 | 4 | 1 | 2 | 2 | 4 | 2 | 2 | 1 | 3 | 60 | 3600 |
| HP | 4 | 4 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 4 | 2 | 4 | 4 | 2 | 2 | 2 | 60 | 3600 |
| IF | 3 | 4 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 4 | 1 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 66 | 4356 |
| IH | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 3 | 3 | 3 | 2 | 1 | 5 | 5 | 3 | 3 | 1 | 1 | 3 | 2 | 3 | 2 | 3 | 1 | 2 | 79 | 6241 |
| IP | 3 | 2 | 2 | 4 | 1 | 4 | 4 | 2 | 2 | 3 | 2 | 1 | 2 | 3 | 3 | 4 | 3 | 1 | 3 | 3 | 2 | 2 | 1 | 2 | 1 | 60 | 3600 |
| IS | 4 | 3 | 3 | 4 | 3 | 4 | 4 | 5 | 3 | 3 | 1 | 2 | 4 | 4 | 3 | 4 | 4 | 4 | 2 | 3 | 4 | 1 | 4 | 3 | 2 | 81 | 6561 |
| JF | 3 | 5 | 3 | 2 | 2 | 3 | 3 | 5 | 5 | 4 | 2 | 4 | 5 | 5 | 1 | 1 | 5 | 3 | 1 | 3 | 1 | 1 | 5 | 2 | 1 | 75 | 5625 |
| JK | 4 | 4 | 1 | 3 | 2 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 4 | 4 | 2 | 3 | 2 | 4 | 3 | 1 | 4 | 2 | 2 | 2 | 1 | 71 | 5041 |
| KD | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 3 | 4 | 1 | 1 | 1 | 3 | 4 | 3 | 3 | 2 | 2 | 2 | 4 | 3 | 2 | 1 | 1 | 68 | 4624 |
| LY | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 4 | 3 | 4 | 3 | 4 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 1 | 1 | 69 | 4761 |
| LM | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 64 | 4096 |
| MA | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 5 | 5 | 4 | 4 | 3 | 3 | 3 | 3 | 1 | 5 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 79 | 6241 |
| MAP | 5 | 3 | 3 | 5 | 3 | 4 | 3 | 3 | 3 | 3 | 1 | 1 | 5 | 3 | 2 | 5 | 4 | 2 | 4 | 4 | 4 | 3 | 2 | 1 | 1 | 77 | 5929 |
| MAS | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 1 | 1 | 4 | 4 | 3 | 4 | 3 | 4 | 4 | 1 | 4 | 2 | 1 | 1 | 78 | 6084 |



| Name | Number of Item |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Y | $\mathbf{Y}^{\mathbf{2}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  | $\begin{array}{\|l\|l\|l\|} \hline 9 & 1 & 1 \\ 0 & 1 \end{array}$ |  | $\begin{array}{\|l\|} \hline 1 \\ 2 \\ \hline 2 \\ \hline \end{array}$ |  |  | $\begin{array}{\|l\|} \hline 1 \\ 4 \\ \hline 0 \end{array}$ | $\begin{array}{l\|l} \hline 1 \\ 5 \\ \hline & 1 \\ \hline \end{array}$ |  |  |  | 1  <br> 9  <br> 2  | $\begin{array}{\|l\|} \hline 2 \\ 0 \\ \hline 2 \\ \hline \end{array}$ | $\begin{array}{\|l} \hline 2 \\ 1 \\ \hline 2 \\ \hline \end{array}$ |  |  | $\begin{array}{\|l\|} \hline 2 \\ 4 \\ \hline 2 \end{array}$ | $\begin{array}{\|l\|} \hline 2 \\ 5 \\ \hline 0 \\ \hline \end{array}$ |  | $\begin{array}{c\|c} \hline 2 & 2 \\ 6 & 7 \\ \hline 0 & 2 \end{array}$ | $\begin{array}{\|l\|l\|} \hline 2 & 2 \\ 8 & 9 \\ \hline 2 & 2 \end{array}$ |  | $\begin{array}{\|l\|} \hline 3 \\ 0 \\ \hline 2 \\ \hline \end{array}$ |  | $\begin{array}{\|l\|} \hline 3 \\ 2 \\ \hline 2 \\ \hline \end{array}$ |  | 3 3 <br> 3 4 <br> 0 0 |  | 3 3 <br> 5 6 <br> 2 2 | 3 <br> 7 |  | $\frac{8}{2}$ | 9 0 | 4 | 4 <br> 2 | 4 | 4 | 4 | 4 | 4 | 4 <br> 8 | $\begin{aligned} & \hline 4 \\ & 9 \end{aligned}$ |  |  |  |  |
| AA | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |  |  |  | 0 | 0 |  | 0 |  | 0 |  |  |  | 2 |  | 0 | 0 | 0 | 0 | 0 | 60 | 3600 |  |  |
| AJ | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 2 |  | 2 | 2 | 2 |  |  | 2 | 2 | 2 | 2 | 2 |  | 0 | 2 | 2 | 0 | 0 |  |  | 2 | 2 | 2 | 0 | 0 | 0 | 0 |  | 02 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 62 | 3844 |
| AM | 2 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 68 | 4624 |
| AS | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 |  | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 20 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 80 | 6400 |
| AR | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 22 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 82 | 6724 |
| AU | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 |  | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 2 | 20 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 80 | 6400 |
| CM | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 |  | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 26 | 676 |
| DC | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 2 | 2 |  | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 02 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 0 | 2 | 0 | 2 | 54 | 2916 |
| DH | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 |  | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 20 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 48 | 2304 |
| DM | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 |  | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 0 | 2 | 2 | 68 | 4624 |
| DS | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 44 | 1936 |
| HP | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 |  | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 02 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 64 | 4096 |
| IF | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 2 |  | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 02 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 68 | 4624 |
| IH | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 |  | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 22 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 60 | 3600 |
| IP | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 |  | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 20 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 62 | 3844 |
| IS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 0 |  | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 76 | 5776 |
| JF | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 22 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 54 | 2916 |
| JK | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 |  | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 22 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 74 | 5476 |
| KD | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 02 | 2 | 2 | 0 | 2 | 0 |  | 0 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 62 | 3844 |
| LY | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 |  | 0 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 60 | 3600 |
| LM | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 |  | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  | 2 | 0 | 2 | 2 | 0 | 84 | 7056 |
| MA | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 20 | 0 | 0 | 0 | 2 | 2 |  | 0 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 22 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 74 | 5476 |
| MAP | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 |  | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 86 | 7396 |
| MAS | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 02 | 2 | 0 | 0 | 2 | 2 |  | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 02 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 50 | 2500 |


| MF | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 82 | 6724 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MH | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 50 | 2500 |
| MJ | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 82 | 6724 |
| MR | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 70 | 4900 |
| MS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 54 | 2916 |
| NHA | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 72 | 5184 |
| NHS | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 74 | 5476 |
| NL | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 74 | 5476 |
| PA | 0 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 2 | 42 | 1764 |
| PC | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 76 | 5776 |
| PES | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 78 | 6084 |
| PR | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 82 | 6724 |
| PS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 78 | 6084 |
| RA | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 86 | 7396 |
| RAS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 84 | 7056 |
| RD | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 84 | 7056 |
| RAM | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 86 | 7396 |
| RS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 86 | 7396 |
| RSH | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 84 | 7056 |
| RT | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 74 | 5476 |
| SD | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 84 | 7056 |
| SH | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 78 | 6084 |
| SS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 78 | 6084 |
| UY | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 78 | 6084 |
| WS | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 78 | 6084 |
| YA | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 72 | 5184 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\sum_{\mathbf{3 5 1 2}} \mathbf{Y}$ | $\sum_{255992} \mathbf{Y}^{2}$ |

## APPENDIX 14

## The Result of Test (Y)

## Number of item

| Name | Number of item |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Y | $Y^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1 1 |  | 1 <br> 1 | 1 2 | 1 |  | 1 | 1 <br> 5 | $\begin{aligned} & 1 \\ & 6 \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 1 \\ 7 \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 1 \\ 8 \\ \hline \end{array}$ | 1 |  | $\begin{aligned} & 2 \\ & 0 \end{aligned}$ | 2 1 | $\begin{aligned} & \hline 2 \\ & 2 \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 2 \\ 3 \\ \hline \end{array}$ | $\begin{aligned} & \hline 2 \\ & 4 \\ & \hline \end{aligned}$ | $\begin{aligned} & 2 \\ & 5 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 2 \\ & 6 \\ & \hline \end{aligned}$ | $\begin{aligned} & 2 \\ & 7 \\ & \hline \end{aligned}$ | $\begin{aligned} & 2 \\ & 8 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 2 \\ & 9 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 3 \\ & 0 \\ & \hline \end{aligned}$ | $\begin{aligned} & 3 \\ & 1 \end{aligned}$ | 3 2 | 3 3 | 3 <br> 4 | 3 <br> 5 | 3 6 | 3 <br> 7 | 3 <br> 8 | 3 9 | $\begin{aligned} & \hline 4 \\ & 0 \\ & \hline \end{aligned}$ | $\begin{aligned} & 4 \\ & 1 \end{aligned}$ | $\begin{aligned} & 4 \\ & 2 \end{aligned}$ | $\begin{aligned} & 4 \\ & 3 \end{aligned}$ | $\begin{aligned} & \hline 4 \\ & 4 \end{aligned}$ | $\begin{aligned} & \hline 4 \\ & 5 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 4 \\ & 6 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 4 \\ & 7 \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 4 \\ 8 \\ \hline \end{array}$ | $\begin{aligned} & \hline 4 \\ & 9 \end{aligned}$ | $\begin{array}{\|l\|} \hline 5 \\ 0 \\ \hline \end{array}$ | 5 <br> 1 |  |  |
| AA | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  | 0 | 0 | 0 | 2 | 2 | 2 |  | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 60 | 3600 |
| AJ | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 |  | 2 | 2 | 2 | 2 | 2 | 2 |  | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 62 | 3844 |
| AM | 2 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |  | 0 | 0 | 0 | 0 | 2 | 2 |  | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 68 | 4624 |
| AS | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 0 |  | 2 | 2 | 2 | 2 | 2 | 2 |  | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 80 | 6400 |
| AR | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  | 2 | 0 | 2 | 0 | 2 | 2 |  | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 82 | 6724 |
| AU | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 |  | 2 | 2 | 2 | 2 | 2 | 2 |  | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 80 | 6400 |
| CM | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 |  | 0 | 0 | 0 | 0 | 0 | 0 |  | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 26 | 676 |
| DC | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 2 |  | 2 | 2 | 2 | 0 | 2 | 0 |  | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 0 | 2 | 0 | 2 | 54 | 2916 |
| DH | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 2 |  | 2 | 2 | 2 |  | 0 | 0 | 0 | 0 | 2 | 0 |  | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 48 | 2304 |
| DM | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  | 2 | 2 | 2 | 0 | 2 | 0 |  | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 0 | 2 | 2 | 68 | 4624 |
| DS | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 2 | 0 |  | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 44 | 1936 |
| HP | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 2 |  | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 64 | 4096 |
| IF | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 |  | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 68 | 4624 |
| IH | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 2 |  | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 60 | 3600 |
| IP | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 |  | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 62 | 3844 |
| IS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 0 | 2 | 0 |  | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 76 | 5776 |
| JF | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 54 | 2916 |
| JK | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 |  | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 74 | 5476 |
| KD | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 |  | 0 | 2 | 0 |  | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 62 | 3844 |
| LY | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 |  | 0 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 60 | 3600 |
| LM | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 2 |  | 2 | 2 | 2 | 2 | 2 | 0 | 02 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  | 2 | 0 | 2 | 2 | 0 | 84 | 7056 |
| MA | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 |  | 0 | 2 | 0 |  | 0 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 74 | 5476 |
| MAP | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  | 2 | 2 | 2 |  | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 86 | 7396 |


| MAS | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 50 | 2500 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MF | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 82 | 6724 |
| MH | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 50 | 2500 |
| MJ | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 82 | 6724 |
| MR | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 70 | 4900 |
| MS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 54 | 2916 |
| NHA | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 72 | 5184 |
| NHS | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 74 | 5476 |
| NL | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 74 | 5476 |
| PA | 0 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 2 | 42 | 1764 |
| PC | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 76 | 5776 |
| PES | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 78 | 6084 |
| PR | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 82 | 6724 |
| PS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 78 | 6084 |
| RA | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 86 | 7396 |
| RAS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 84 | 7056 |
| RD | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 84 | 7056 |
| RAM | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 86 | 7396 |
| RS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 86 | 7396 |
| RSH | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 84 | 7056 |
| RT | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 74 | 5476 |
| SD | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 84 | 7056 |
| SH | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 78 | 6084 |
| SS | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 78 | 6084 |
| UY | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 78 | 6084 |
| WS | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 78 | 6084 |
| YA | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 72 | 5184 |

## Appendix 17

Table II
The Correlation of Students' Attitude (X) and Students' English Achievement (Y)

| No. | Name | X | Y | $\mathrm{X}^{2}$ | $\mathbf{Y}^{\mathbf{2}}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | AA | 94 | 60 | 8836 | 3600 | 5640 |
| 2 | AJ | 87 | 62 | 7569 | 3844 | 5394 |
| 3 | AM | 60 | 68 | 3600 | 4624 | 4080 |
| 4 | AS | 93 | 80 | 8649 | 6400 | 7440 |
| 5 | AR | 94 | 82 | 8836 | 6724 | 7708 |
| 6 | AU | 87 | 80 | 7569 | 6400 | 6960 |
| 7 | CM | 70 | 26 | 4900 | 676 | 1820 |
| 8 | DC | 70 | 54 | 4900 | 2916 | 3780 |
| 9 | DH | 60 | 48 | 3600 | 2304 | 2880 |
| 10 | DM | 65 | 68 | 4225 | 4624 | 4420 |
| 11 | DS | 60 | 44 | 3600 | 1936 | 2640 |
| 12 | HP | 60 | 64 | 3600 | 4096 | 3840 |
| 13 | IF | 66 | 68 | 4356 | 4624 | 4488 |
| 14 | IH | 79 | 60 | 6241 | 3600 | 4740 |
| 15 | IP | 60 | 62 | 3600 | 3844 | 3720 |
| 16 | IS | 81 | 76 | 6561 | 5776 | 6156 |
| 17 | JF | 75 | 54 | 5625 | 2916 | 4050 |
| 18 | JK | 71 | 74 | 5041 | 5476 | 5254 |
| 19 | KD | 68 | 62 | 4624 | 3844 | 4216 |
| 20 | LY | 69 | 60 | 4761 | 3600 | 4140 |
| 21 | LM | 64 | 84 | 4096 | 7056 | 5376 |
| 22 | MA | 79 | 74 | 6241 | 5476 | 5846 |
| 23 | MAP | 77 | 86 | 5929 | 7396 | 6622 |
| 24 | MAS | 78 | 50 | 6084 | 2500 | 3900 |
| 25 | MF | 68 | 82 | 4624 | 6724 | 5576 |
| 26 | MH | 73 | 50 | 5329 | 2500 | 3650 |
| 27 | MJ | 80 | 82 | 6400 | 6724 | 6560 |
| 28 | MR | 69 | 70 | 4761 | 4900 | 4830 |
| 29 | MS | 68 | 54 | 4624 | 2916 | 3672 |
| 30 | NHA | 66 | 72 | 4356 | 5184 | 4752 |
| 31 | NHS | 70 | 74 | 4900 | 5476 | 5180 |
| 32 | NL | 60 | 74 | 3600 | 5476 | 4440 |


| 33 | PA | 84 | 42 | 7056 | 1764 | 3528 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 34 | PC | 70 | 76 | 4900 | 5776 | 5320 |
| 35 | PES | 60 | 78 | 3600 | 6084 | 4680 |
| 36 | PR | 78 | 82 | 6084 | 6724 | 6396 |
| 37 | PS | 67 | 78 | 4489 | 6084 | 5226 |
| 38 | RA | 83 | 86 | 6889 | 7396 | 7138 |
| 39 | RAS | 64 | 84 | 4096 | 7056 | 5376 |
| 40 | RD | 72 | 84 | 5184 | 7056 | 6048 |
| 41 | RAM | 80 | 86 | 6400 | 7396 | 6880 |
| 42 | RS | 72 | 86 | 5184 | 7396 | 6192 |
| 43 | RSH | 78 | 84 | 6084 | 7056 | 6552 |
| 44 | RT | 69 | 74 | 4761 | 5476 | 5106 |
| 45 | SD | 80 | 84 | 6400 | 7056 | 6720 |
| 46 | SH | 67 | 78 | 4489 | 6084 | 5226 |
| 47 | SS | 72 | 78 | 5184 | 6084 | 5616 |
| 48 | UY | 67 | 78 | 4489 | 6084 | 5226 |
| 29 | WS | 60 | 78 | 3600 | 6084 | 4680 |
| 50 | YA | 70 | 72 | 4900 | 5184 | 5040 |
|  |  | 3614 | 3512 | 265426 | 255992 | 254720 |

N : 50
$\Sigma \mathrm{X}: 3614$
$\sum \mathrm{Y} \quad: 3512$
$\sum X^{2}: 265426$
$\sum \mathrm{Y}^{2} \quad: 255992$
$\Sigma \mathrm{XY}: 254720$

## Appendix18

# Statistic Examine Look for Mean, Median,Modus, Range, <br> Total of Classes, Interval,Standard Deviation of Students' Attitude, and Result of the Normality Test 

1. Score

| 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 64 | 64 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 65 | 66 | 66 | 67 | 67 | 67 | 68 | 68 | 68 | 69 |
| 69 | 69 | 70 | 70 | 70 | 70 | 70 | 71 | 72 | 72 |
| 72 | 73 | 75 | 77 | 78 | 78 | 78 | 79 | 79 | 80 |
| 80 | 80 | 81 | 83 | 84 | 87 | 87 | 93 | 94 | 94 |

2. Highest score : 94

Lowest score : 60
3. Range $=$ High Score - Low Score

$$
\begin{aligned}
& =94-60 \\
& =34
\end{aligned}
$$

4. Total of classes (BK)

$$
\begin{aligned}
\mathrm{K} \quad & =1+3.3 \log n \\
& =1+3.3 \log 50 \\
& =1+3.3(1.698) \\
& =1+5.6034 \\
& =6.6034(7)
\end{aligned}
$$

5. Interval (i)

$$
\begin{aligned}
& \mathrm{i}=\frac{R}{B K} \\
& =\frac{34}{7}
\end{aligned}
$$

$$
=4.85
$$

6. Mean

| Interval | $f_{i}$ | $x_{i}$ | $\left(f_{i} x_{i}\right)$ |
| :---: | :---: | :---: | :---: |
| $60-64$ | 10 | 62 | 620 |
| $65-69$ | 12 | 67 | 804 |
| $70-74$ | 10 | 72 | 720 |
| $75-79$ | 7 | 77 | 539 |
| $80-84$ | 6 | 82 | 492 |
| $85-89$ | 2 | 87 | 174 |
| $90-94$ | 3 | 92 | 276 |
| Jumlah | 50 | 539 | 3625 |

$$
\begin{aligned}
& (\mathrm{x})=\sum \frac{f i x i}{f i} \\
& =\frac{3625}{50} \\
& =72.5
\end{aligned}
$$

7. Median

| Interval | $f_{i}$ | $F k_{b}$ | $F k_{a}$ |
| :---: | :---: | :---: | :---: |
| $60-64$ | 10 | $50=\mathrm{N}$ | 10 |
| $65-69$ | 12 | 40 | 22 |
| $70-74$ | 10 | 28 | 32 |
| $75-79$ | 7 | 18 | 39 |
| $80-84$ | 6 | 11 | 45 |
| $85-89$ | 2 | 5 | 47 |
| $90-94$ | 3 | 3 | 50 |
| Jumlah | 50 |  |  |

$$
\mathrm{Me}=\mathrm{Bb}+\mathrm{p}\left(\frac{\frac{1}{2} n-\mathrm{Fkb}}{f i}\right)
$$

$$
\begin{aligned}
& =69.50+5\left(\frac{\frac{1}{2} 50-18}{10}\right) \\
& =69.50+5\left(\frac{25-18}{10}\right) \\
& =69.50+5\left(\frac{7}{10}\right) \\
& =69.50+5(0.7) \\
& =69.50+3.5 \\
& =73
\end{aligned}
$$

8. Modus

| Interval | $f_{i}$ |
| :---: | :---: |
| $60-64$ | 10 |
| $65-69$ | 12 |
| $70-74$ | 10 |
| $75-79$ | 7 |
| $80-84$ | 6 |
| $85-89$ | 2 |
| $90-94$ | 3 |
| Jumlah | 50 |

$$
\begin{aligned}
\text { Modus } & =\mathrm{Bb}+\mathrm{p}\left(\frac{F 1}{F 1+F 2}\right) \\
= & 64.50+5\left(\frac{10}{10+10}\right) \\
& =64.50+5\left(\frac{10}{20}\right) \\
& =64.50+5(0.5) \\
& =64.50+2.5 \\
& =67
\end{aligned}
$$

9. Standard Deviation

| Interval | $f_{i}$ | $x_{i}$ | $\left(f_{i} x_{i}\right)$ | $x_{i}{ }^{2}$ | $f x_{i}{ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $60-64$ | 10 | 62 | 620 | 3844 | 38440 |
| $65-69$ | 12 | 67 | 804 | 4489 | 53868 |
| $70-74$ | 10 | 72 | 720 | 5184 | 51840 |
| $75-79$ | 7 | 77 | 539 | 5929 | 41503 |
| $80-84$ | 6 | 82 | 492 | 6724 | 40344 |
| $85-89$ | 2 | 87 | 174 | 7569 | 15138 |
| $90-94$ | 3 | 92 | 276 | 8464 | 25392 |
| Total | 50 | 539 | 3625 | 42203 | 266525 |

$$
\begin{aligned}
S & =\frac{\sqrt{\sum f x^{2}}}{\sum f-1} \\
& =\frac{\sqrt{266525}}{50-1} \\
& =\frac{\sqrt{266525}}{49}
\end{aligned}
$$

$$
=\sqrt{5439.285}
$$

$$
=73.751
$$

Table of Normality Data Test with Chi Kuadrat Formula

| Interval <br> of <br> Score | Real Upper <br> Limit | $Z-$ <br> Score | Limit of <br> Large of the <br> Area | Large <br> of area | $\mathrm{f}_{\mathrm{h}}$ | $\mathrm{f}_{0}$ | $\frac{\left(\mathrm{f}_{0}-\mathrm{f}_{\mathrm{h}}\right)}{\mathrm{f}_{\mathrm{h}}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $90-94$ | 94.5 | 1.73 | 0.4582 |  |  |  |  |
| $85-89$ | 89.5 | 1.08 | 0.3599 | 0.10 | 3.5 | 4 | 0.14 |
| $80-84$ | 84.5 | 0.43 | 0.1664 | 0.19 | 6.65 | 4 | -0.39 |
| $75-79$ | 79.5 | -0.21 | 0.41683 | -0.25 | -8.75 | 10 | 0.14 |
| $70-74$ | 74.5 | -0.86 | 0.19489 | 0.22 | 7.7 | 6 | -0.22 |
| $65-69$ | 69.5 | -1.51 | 0.06552 | 0.12 | 4.2 | 5 | 0.19 |
| $60-64$ | 64.5 | -2.16 | 0.01539 | 0.05 | 1.4 | 2 | 0.42 |
|  |  |  |  |  |  |  |  |

Based on table above, reseracher found that $\mathrm{x}^{2}{ }_{\text {count }}=2.28$ while $\mathrm{x}_{\text {table }}^{2}=5,991$ cause $\mathrm{x}^{2}{ }_{\text {count }}<\mathrm{x}_{\text {table }}^{2}(2.28<5.991)$ with degree of freedom $\mathrm{dk}=5-3=2$ and significat level $\alpha=5 \%$. So distribution samplewas normal.

## Appendix 19

Statistic Examine Look for Mean, Median, Modus, Range, Total of Classes, Interval, and Standard Deviation of Students' English Achievement

1. Score

| 26 | 42 | 44 | 48 | 50 | 50 | 54 | 54 | 54 | 60 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 60 | 60 | 62 | 62 | 62 | 64 | 68 | 68 | 68 | 70 |
| 72 | 72 | 74 | 74 | 74 | 74 | 74 | 76 | 76 | 78 |
| 78 | 78 | 78 | 78 | 78 | 78 | 80 | 82 | 82 | 82 |
| 82 | 84 | 84 | 84 | 84 | 84 | 86 | 86 | 86 | 86 |

2. Highest score : 86

Lowest score : 26
3. Range $=$ High Score - Low Score

$$
\begin{aligned}
& =86-26 \\
& =60
\end{aligned}
$$

4. Total of classes (BK)

K $=1+3.3 \log n$
$=1+3.3 \log 50$
$=1+3.3(1.698)$
$=1+5.6034$
$=6.6034(7)$
5. Interval (i)
$\mathrm{i}=\frac{R}{B K}$
$=\frac{60}{7}$

$$
=8.57(9)
$$

6. Mean

| Interval | $f_{i}$ | $x_{i}$ | $\left(f_{i} x_{i}\right)$ |
| :---: | :---: | :---: | :---: |
| $26-34$ | 1 | 30 | 30 |
| $35-43$ | 1 | 39 | 39 |
| $44-52$ | 4 | 48 | 192 |
| $53-61$ | 6 | 57 | 342 |
| $62-70$ | 8 | 66 | 528 |
| $71-79$ | 16 | 75 | 1125 |
| $80-88$ | 14 | 84 | 1344 |
| Total | 50 | 399 | 3600 |

$$
\begin{aligned}
& (\mathrm{x})=\sum \frac{f i x i}{f i} \\
& =\frac{3600}{50} \\
& =72
\end{aligned}
$$

7. Median

| Interval | $f_{i}$ | $F k_{b}$ | $F k_{a}$ |
| :---: | :---: | :---: | :---: |
| $26-34$ | 1 | $50=\mathrm{N}$ | 1 |
| $35-43$ | 1 | 49 | 2 |
| $44-52$ | 4 | 48 | 6 |
| $53-61$ | 6 | 44 | 12 |
| $62-70$ | 8 | 38 | 20 |
| $71-79$ | 16 | 30 | 36 |
| $80-88$ | 14 | 14 | $50=\mathrm{N}$ |
| Total 50 |  |  |  |

$$
\begin{aligned}
\mathrm{Me} & =\mathrm{b}+\mathrm{p}\left(\frac{\frac{1}{2} n-\mathrm{Fkb}}{f i}\right) \\
& =70.50+9\left(\frac{\frac{1}{2} 50-14}{16}\right) \\
& =70.50+9\left(\frac{25-14}{16}\right) \\
& =70.50+9\left(\frac{11}{16}\right) \\
& =70.50+9(0.68) \\
& =70.50+6.12 \\
& =76.62
\end{aligned}
$$

8. Modus

| Interval | $f_{i}$ |
| :---: | :---: |
| $26-34$ | 1 |
| $35-43$ | 1 |
| $44-52$ | 4 |
| $53-61$ | 6 |
| $62-70$ | 8 |
| $71-79$ | 16 |
| $80-88$ | 14 |
| Total $50=\mathrm{N}$ |  |

$$
\begin{gathered}
\text { Modus }=\mathrm{Bb}+\mathrm{p}\left(\frac{F 1}{F 1+F 2}\right) \\
=70.50+9\left(\frac{16}{16+14}\right)
\end{gathered}
$$

$$
\begin{aligned}
& =70.50+9\left(\frac{16}{30}\right) \\
& =70.50+9(0.533) \\
& =70.50+4.797 \\
& =75.297
\end{aligned}
$$

9. Standard Deviation

| Interval | $f_{i}$ | $x_{i}$ | $\left(f_{i} x_{i}\right)$ | $x_{i}{ }^{2}$ | $f x_{i}{ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $26-34$ | 1 | 30 | 30 | 900 | 900 |
| $35-43$ | 1 | 39 | 39 | 1521 | 1521 |
| $44-52$ | 4 | 48 | 192 | 2304 | 9216 |
| $53-61$ | 6 | 57 | 342 | 3249 | 19494 |
| $62-70$ | 8 | 66 | 528 | 4356 | 34848 |
| $71-79$ | 16 | 75 | 1125 | 5625 | 84375 |
| $80-88$ | 14 | 84 | 1344 | 7056 | 112896 |
| Total | 50 | 399 | 3600 | 25011 | 263250 |

$$
\begin{aligned}
& S=\frac{\sqrt{\sum f x i^{2}}}{\sum f-1} \\
&=\frac{\sqrt{263250}}{50-1} \\
&=\frac{\sqrt{263250}}{49} \\
&=\sqrt{5372.448}
\end{aligned}
$$

$$
=73.296
$$

## Appendix 20

## The Calculation of Coefficient Correlation

It could be seen the application of the procedures by using Product Moment formula as follow:

$$
\begin{aligned}
& r_{x y}=\frac{N \sum x y-\left(\sum x\right)\left(\sum y\right)}{\sqrt{\left\{N\left(\sum x^{2}\right)-\left(\sum x\right)^{2}\right\}\left\{N\left(\sum y^{2}\right)-\left(\sum y\right)^{2}\right.}} \\
& =\frac{50.254720-(3614)(3512)}{\sqrt{\left\{50.265462-(3614)^{2}\right\}\left\{50.255992-(3512)^{2}\right\}}} \\
& =\frac{12736000-12692368}{\sqrt{\{13273100-13060996\} 12799600-12334144\}}} \\
& =\frac{43632}{\sqrt{(210304)(465456)}} \\
& =\frac{43632}{\sqrt{9788725810}} \\
& =\frac{43632}{98937.989} \\
& =0.441
\end{aligned}
$$

Based on calculation, it can be seen that the value of $r_{x y}$ was 0.441 . The value of the $r_{\text {table }}$ in Pearson Product Moment formulated on the table 5\% significant was 0.279 . It showed $r_{\text {count }}$ was higher than $r_{\text {table }}$ on $0.441>0.284$

## Appendix 21

## The Calculation of Contribution Variables $\mathbf{X}$ and $\mathbf{Y}$

To know the contribution of students' attitude and students' English Achievement, the calculation as follow:

$$
\begin{aligned}
& \mathrm{KP}=\mathrm{r}^{2} \mathrm{X} 100 \% \\
& \mathrm{KP} \\
& \begin{aligned}
\mathrm{r} & =\text { the score of determine coefficient } \\
\mathrm{KP} & =\text { the score of the coefficients correlation } \\
& =\mathrm{r}^{2} \times 100 \% \\
& =0.441^{2} \times 100 \% \\
& =0.1944 \times 100 \% \\
& =19.44 \%
\end{aligned}
\end{aligned}
$$

Based on the calculation, it was mean that the contribution of attitude toward English achievement was $19.44 \%$. So, the remainder it was $80.56 \%$ determined by other variables.

## Appendix 22

The Result of Essay Test

| NO. | Initial Name | Features | Number of Questions |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1 | 2 | 3 | 4 | Value |
| 1. | A.A | Content | 25 | 30 | 30 | 15 | 16 |
|  |  | Organization | 15 | 18 | 19 | 10 |  |
|  |  | Language use | 20 | 17 | 18 | 10 |  |
|  |  | Vocabulary | 16 | 27 | 26 | 24 |  |
|  |  | Mechanics | 4 | 5 | 4 | 4 |  |
|  |  | Total | 16 | 19.4 | 19.4 | 12.6 |  |
| 2. | A.J | Content | 13 | 30 | 17 | 17 | 58 |
|  |  | Organization | 10 | 15 | 15 | 15 |  |
|  |  | Language use | 16 | 21 | 17 | 10 |  |
|  |  | Vocabulary | 9 | 28 | 28 | 15 |  |
|  |  | Mechanics | 3 | 5 | 5 | 3 |  |
|  |  | Total | 51 | 99 | 82 | 60 | 56 |
| 3. | A.M | Content | 22 | 16 | 30 | 25 |  |
|  |  | Organization | 13 | 16 | 18 | 11 |  |
|  |  | Language use | 15 | 17 | 16 | 12 |  |
|  |  | Vocabulary | 16 | 14 | 19 | 10 |  |
|  |  | Mechanics | 3 | 3 | 3 | 2 |  |
|  |  | Total | 69 | 66 | 86 | 60 |  |
| 4. | A.R | Content | 26 | 30 | 30 | 28 | 79 |
|  |  | Organization | 17 | 20 | 20 | 23 |  |
|  |  | Language use | 21 | 22 | 22 | 19 |  |
|  |  | Vocabulary | 16 | 28 | 28 | 27 |  |
|  |  | Mechanics | 4 | 5 | 5 | 5 |  |
|  |  |  | 84 | 105 | 105 | 102 |  |
| 5. | A.S | Content | 30 | 30 | 30 | 30 | 80 |
|  |  | Organization | 18 | 20 | 20 | 20 |  |
|  |  | Language use | 22 | 20 | 20 | 20 |  |
|  |  | Vocabulary | 18 | 27 | 27 | 27 |  |
|  |  | Mechanics | 4 | 5 | 5 | 5 |  |
|  |  |  | 92 | 102 | 102 | 102 |  |
| 6. | A.U | Content | 26 | 28 | 30 | 13 | 71 |
|  |  | Organization | 16 | 20 | 20 | 13 |  |
|  |  | Language use | 25 | 25 | 25 | 10 |  |


|  |  | Vocabulary | 27 | 28 | 28 | 9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Mechanics | 4 | 4 | 4 | 2 |
|  |  | 98 | 105 | 107 | 47 |  |
|  |  | C.M | Content | 15 | 30 | 16 |


|  |  |  | 90 | 108 | 89 | 107 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13. | I.F | Content | 27 | 28 | 26 | 14 | 57 |
|  |  | Organization | 18 | 17 | 10 | 17 |  |
|  |  | Language use | 22 | 23 | 19 | 10 |  |
|  |  | Vocabulary | 17 | 20 | 20 | 15 |  |
|  |  | Mechanics | 3 | 3 | 3 | 2 |  |
|  |  |  | 60 | 91 | 78 | 58 |  |
| 14. | I.H | Content | 30 | 30 | 30 | 25 | 71 |
|  |  | Organization | 17 | 16 | 17 | 17 |  |
|  |  | Language use | 20 | 25 | 19 | 20 |  |
|  |  | Vocabulary | 16 | 26 | 18 | 15 |  |
|  |  | Mechanics | 4 | 5 | 3 | 3 |  |
|  |  |  | 87 | 102 | 87 | 80 |  |
| 15. | I.P | Content | 28 | 30 | 26 | 20 | 65 |
|  |  | Organization | 18 | 18 | 17 | 16 |  |
|  |  | Language use | 23 | 21 | 18 | 14 |  |
|  |  | Vocabulary | 16 | 16 | 14 | 15 |  |
|  |  | Mechanics | 4 | 4 | 3 | 2 |  |
|  |  |  | 89 | 89 | 78 | 67 |  |
| 16. | I.S | Content | 28 | 29 | 28 | 30 | 82 |
|  |  | Organization | 20 | 19 | 20 | 19 |  |
|  |  | Language use | 22 | 24 | 24 | 24 |  |
|  |  | Vocabulary | 26 | 28 | 26 | 25 |  |
|  |  | Mechanics | 4 | 5 | 5 | 5 |  |
|  |  |  | 100 | 105 | 103 | 103 |  |
| 17. | J.F | Content | 22 | 24 | 23 | 21 | 35 |
|  |  | Organization | 18 | 19 | 16 | 12 |  |
|  |  | Language use | 19 | 20 | 19 | 21 |  |
|  |  | Vocabulary | 20 | 27 | 25 | 27 |  |
|  |  | Mechanics | 4 | 5 | 4 | 4 |  |
|  |  |  |  |  |  |  |  |
| 18. | J.K | Content | 17 | 16 | 16 | 16 | 48 |
|  |  | Organization | 14 | 15 | 11 | 10 |  |
|  |  | Language use | 14 | 15 | 13 | 12 |  |
|  |  | Vocabulary | 16 | 20 | 14 | 10 |  |
|  |  | Mechanics | 3 | 3 | 2 | 2 |  |
|  |  |  | 64 | 69 | 56 | 50 |  |
|  |  | Content | 24 | 27 | 23 | 22 | 75 |


| 19. | K.D | Organization | 17 | 19 | 19 | 18 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Language use | 23 | 24 | 19 | 20 |  |
|  |  | Vocabulary | 26 | 27 | 25 | 27 |  |
|  |  | Mechanics | 4 | 5 | 4 | 4 |  |
|  |  |  | 94 | 102 | 90 | 91 |  |
| 20. | L.Y | Content | 30 | 30 | 24 | 20 | 75 |
|  |  | Organization | 18 | 18 | 16 | 13 |  |
|  |  | Language use | 22 | 21 | 19 | 20 |  |
|  |  | Vocabulary | 28 | 28 | 25 | 24 |  |
|  |  | Mechanics | 5 | 4 | 4 | 4 |  |
|  |  |  | 103 | 101 | 88 | 81 |  |
| 21. | L.M | Content | 29 | 29 | 28 | 27 | 80 |
|  |  | Organization | 20 | 23 | 20 | 20 |  |
|  |  | Language use | 23 | 25 | 20 | 19 |  |
|  |  | Vocabulary | 27 | 27 | 25 | 24 |  |
|  |  | Mechanics | 4 | 4 | 4 | 3 |  |
|  |  |  | 103 | 108 | 97 | 93 |  |
| 22. | M.A | Content | 30 | 30 | 30 | 30 | 80 |
|  |  | Organization | 27 | 26 | 25 | 25 |  |
|  |  | Language use | 24 | 19 | 19 | 15 |  |
|  |  | Vocabulary | 24 | 23 | 20 | 17 |  |
|  |  | Mechanics | 4 | 4 | 3 | 4 |  |
|  |  |  | 109 | 102 | 97 | 91 |  |
| 23. | MA.P | Content | 25 | 25 | 25 | 20 | 65 |
|  |  | Organization | 17 | 18 | 15 | 15 |  |
|  |  | Language use | 18 | 20 | 16 | 18 |  |
|  |  | Vocabulary | 20 | 24 | 18 | 17 |  |
|  |  | Mechanics | 4 | 3 | 3 | 2 |  |
|  |  |  | 84 | 90 | 77 | 72 |  |
|  | MA.S | Content | 28 | 29 | 28 | 30 | 86 |


| 24. |  | Organization | 27 | 28 | 16 | 26 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Language use | 28 | 29 | 18 | 27 |  |
|  |  | Vocabulary | 25 | 25 | 19 | 27 |  |
|  |  | Mechanics | 4 | 5 | 4 | 5 |  |
|  |  |  | 112 | 116 | 85 | 115 |  |
| 25. | M.F | Content | 27 | 27 | 26 | 26 | 80 |
|  |  | Organization | 26 | 27 | 25 | 28 |  |
|  |  | Language use | 20 | 25 | 23 | 25 |  |
|  |  | Vocabulary | 19 | 20 | 18 | 20 |  |
|  |  | Mechanics | 4 | 4 | 4 | 4 |  |
|  |  |  | 96 | 103 | 96 | 103 |  |
| 26. | M.H | Content | 15 | 15 | 15 | 12 | 47 |
|  |  | Organization | 14 | 13 | 14 | 14 |  |
|  |  | Language use | 15 | 13 | 14 | 14 |  |
|  |  | Vocabulary | 16 | 15 | 14 | 10 |  |
|  |  | Mechanics | 3 | 2 | 2 | 3 |  |
|  |  | Total | 63 | 58 | 59 | 53 |  |
| 27. | M.J | Content | 30 | 116 | 30 | 30 | 0 |
|  |  | Organization | 23 | 24 | 23 | $\checkmark 23$ |  |
|  |  | Language use | 25 | 25 | 23 | 21 |  |
|  |  | Vocabulary | 19 | 20 | 18 | 20 |  |
|  |  | Mechanics | 3 | 4 | 4 | 2 |  |
|  |  | Total | 100 | 73 | 98 | 73 |  |
| 28. | M.R | Content | 28 | 29 | 27 | 27 | 96 |
|  |  | Organization | 24 | 25 | 23 | 23 |  |
|  |  | Language use | 20 | 22 | 18 | 19 |  |
|  |  | Vocabulary | 19 | 20 | 22 | 21 |  |
|  |  | Mechanics | 4 | 5 | 4 | 4 |  |
|  |  | Total | 95 | 101 | 188 | 94 |  |
| 29. | M.S | Content | 29 | 29 | 67 | 28 | 83 |
|  |  | Organization | 25 | 26 | 22 | 21 |  |
|  |  | Language use | 19 | 20 | 15 | 17 |  |
|  |  | Vocabulary | 22 | 23 | 19 | 19 |  |
|  |  | Mechanics | 4 | 4 | 3 | 3 |  |
|  |  | Total | 99 | 102 | 126 | 88 |  |
|  | NH.A | Content | 28 | 29 | 24 | 25 |  |
|  |  | Organization | 20 | 25 | 22 | 24 |  |


| 30. |  | Language use | 19 | 21 | 18 | 24 | 74 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Vocabulary | 17 | 20 | 17 | 22 |  |
|  |  | Mechanics | 4 | 4 | 3 | 4 |  |
|  |  | Total | 88 | 99 | 84 | 99 |  |
| 31. | NH.S | Content | 22 | 25 | 24 | 24 | 87 |
|  |  | Organization | 20 | 24 | 21 | 22 |  |
|  |  | Language use | 13 | 22 | 22 | 19 |  |
|  |  | Vocabulary | 20 | 19 | 18 | 17 |  |
|  |  | Mechanics | 4 | 3 | 2 | 4 |  |
|  |  | Total | 79 | 93 | 87 | 86 |  |
| 32. | N.L | Content | 23 | 22 | 15 | 22 | 84 |
|  |  | Organization | 18 | 22 | 22 | 22 |  |
|  |  | Language use | 22 | 22 | 18 | 18 |  |
|  |  | Vocabulary | 18 | 18 | 18 | 19 |  |
|  |  | Mechanics | 3 | 4 | 3 | 4 |  |
|  |  | Total | 84 | 88 | 76 | 88 |  |
| 33. | P.A | Content | 29 | 29 | 28 | 24 | 78 |
|  |  | Organization | 23 | 23 | 24 | 25 |  |
|  |  | Language use | 22 | 29 | 22 | 28 |  |
|  |  | Vocabulary | 20 | 17 | 15 | 15 |  |
|  |  | Mechanics | 4 | 4 | 4 | 5 |  |
|  |  | Total | 98 | 102 | 93 | 97 |  |
| 34. | P.C | Content | 30 | 29 | 30 | 18 | 76 |
|  |  | Organization | 20 | 21 | 20 | 14 |  |
|  |  | Language use | 25 | 20 | 25 | 18 |  |
|  |  | Vocabulary | 28 | 28 | 28 | 10 |  |
|  |  | Mechanics | 5 | 3 | 4 | 3 |  |
|  |  | Total | 108 | 101 | 107 | 63 |  |
| 35. | PA.S | Content | 28 | 28 | 30 | 18 | 77 |
|  |  | Organization | 18 | 20 | 25 | 15 |  |
|  |  | Language use | 25 | 30 | 25 | 18 |  |
|  |  | Vocabulary | 28 | 26 | 25 | 10 |  |
|  |  | Mechanics | 5 | 5 | 4 | 3 |  |
|  |  | Total | 104 | 109 | 109 | 64 |  |
| 36. | P.R | Content | 28 | 27 | 30 | 17 |  |
|  |  | Organization | 25 | 22 | 22 | 18 |  |
|  |  | Language use | 21 | 23 | 23 | 18 |  |


|  |  | Vocabulary | 28 | 26 | 23 | 15 | 61 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Mechanics | 5 | 3 | 4 | 3 |  |
|  |  | Total | 107 | 27 | 102 | 71 |  |
| 37. | P.S | Content | 26 | 30 | 30 | 20 | 72 |
|  |  | Organization | 25 | 25 | 20 | 15 |  |
|  |  | Language use | 25 | 22 | 15 | 21 |  |
|  |  | Vocabulary | 28 | 19 | 15 | 10 |  |
|  |  | Mechanics | 5 | 3 | 3 | 3 |  |
|  |  | Total | 109 | 99 | 83 | 69 |  |
| 38. | R.A | Content | 22 | 19 | 22 | 25 | 61 |
|  |  | Organization | 15 | 17 | 19 | 12 |  |
|  |  | Language use | 20 | 17 | 17 | 13 |  |
|  |  | Vocabulary | 16 | 17 | 19 | 20 |  |
|  |  | Mechanics | 3 | 3 | 3 | 4 |  |
|  |  | Total | 76 | 73 | 80 | 74 |  |
| 39. | RA.S | Content | 25 | 27 | 24 | 23 | 63 |
|  |  | Organization | 20 | 20 | 20 | 17 |  |
|  |  | Language use | 16 | 15 | 15 | 10 |  |
|  |  | Vocabulary | 19 | 19 | 19 | 15 |  |
|  |  | Mechanics | 4 | 3 | 3 | 3 |  |
|  |  | Total | 84 | 84 | 81 | 68 |  |
| 40. | R.D | Content | 29 | 30 | 29 | 30 | 80 |
|  |  | Organization | 19 | 20 | 18 | 20 |  |
|  |  | Language use | 24 | 25 | 18 | 20 |  |
|  |  | Vocabulary | 27 | 28 | 20 | 28 |  |
|  |  | Mechanics | 4 | 5 | 4 | 4 |  |
|  |  | Total | 103 | 108 | 89 | 102 |  |
| 41. | RA.M | Content | 17 | 18 | 13 | 10 | 45 |
|  |  | Organization | 16 | 15 | 11 | 7 |  |
|  |  | Language use | 16 | 15 | 13 | 8 |  |
|  |  | Vocabulary | 16 | 19 | 10 | 9 |  |
|  |  | Mechanics | 3 | 3 | 2 | 2 |  |
|  |  | Total | 68 | 70 | 49 | 36 |  |
| 42. | R.S | Content | 29 | 29 | 27 | 28 |  |
|  |  | Organization | 20 | 20 | 19 | 20 |  |
|  |  | Language use | 24 | 25 | 23 | 23 |  |
|  |  | Vocabulary | 18 | 19 | 19 | 18 |  |


|  |  | Mechanics | 4 | 4 | 4 | 4 | 75 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | 95 | 97 | 92 | 93 |  |
| 43. | RS.H | Content | 22 | 17 | 15 | 16 | 53 |
|  |  | Organization | 16 | 18 | 13 | 12 |  |
|  |  | Language use | 19 | 20 | 13 | 10 |  |
|  |  | Vocabulary | 15 | 20 | 16 | 10 |  |
|  |  | Mechanics | 3 | 3 | 3 | 2 |  |
|  |  | Total | 75 | 78 | 60 | 50 |  |
| 44 | R.T | Content | 25 | 11 | 25 | 27 | 48 |
|  |  | Organization | 17 | 10 | 11 | 9 |  |
|  |  | Language use | 15 | 15 | 10 | 10 |  |
|  |  | Vocabulary | 15 | 13 | 10 | 7 |  |
|  |  | Mechanics | 2 | 2 | 2 | 2 |  |
|  |  | Total | 74 | 51 | 58 | 55 |  |
| 45. | S.D | Content | 29 | 26 | 27 | 27 | 74 |
|  |  | Organization | 17 | 17 | 17 | 15 |  |
|  |  | Language use | 20 | 20 | 22 | 19 |  |
|  |  | Vocabulary | 26 | 28 | 24 | 20 |  |
|  |  | Mechanics | 4 | 4 | 3 | 3 |  |
|  |  | Total | 96 | 95 | 93 | 84 |  |
| 46. | S.H | Content | 28 | 29 | 17 | 10 | 58 |
|  |  | Organization | 19 | 20 | 9 | 7 |  |
|  |  | Language use | 20 | 25 | 11 | 10 |  |
|  |  | Vocabulary | 26 | 27 | 10 | 9 |  |
|  |  | Mechanics | 4 | 5 | 2 | 2 |  |
|  |  | Total | 97 | 106 | 49 | 38 |  |
| 47. | S.S | Content | 28 | 30 | 30 | 27 | 82 |
|  |  | Organization | 19 | 20 | 20 | 19 |  |
|  |  | Language use | 24 | 25 | 25 | 23 |  |
|  |  | Vocabulary | 18 | 28 | 28 | 26 |  |
|  |  | Mechanics | 4 | 5 | 5 | 4 |  |
|  |  | Total | 93 | 108 | 108 | 99 |  |
| 48. | U.Y | Content | 22 | 17 | 17 | 13 | 50 |
|  |  | Organization | 15 | 14 | 11 | 10 |  |
|  |  | Language use | 17 | 16 | 14 | 13 |  |
|  |  | Vocabulary | 16 | 15 | 14 | 14 |  |
|  |  | Mechanics | 3 | 3 | 3 | 2 |  |


|  |  | Total | 73 | 65 | 59 | 52 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 49. | W.S | Content | 28 | 30 | 26 | 30 | 83 |
|  |  | Organization | 19 | 20 | 16 | 20 |  |
|  |  | Language use | 24 | 25 | 23 | 25 |  |
|  |  | Vocabulary | 27 | 28 | 28 | 28 |  |
|  |  | Mechanics | 3 | 5 | 3 | 5 |  |
|  |  | Total | 101 | 108 | 96 | 108 |  |
| 50. | Y.A | Content | 28 | 30 | 27 | 28 | 83 |
|  |  | Organization | 20 | 22 | 18 | 20 |  |
|  |  | Language use | 25 | 22 | 25 | 25 |  |
|  |  | Vocabulary | 28 | 27 | 25 | 28 |  |
|  |  | Mechanics | 5 | 5 | 4 | 4 |  |
|  |  | Total | 106 | 106 | 99 | 105 |  |

## Appendix 23

## R-TABLE OF PRODUCT MOMENT

| N | Taraf | Signif | N | Taraf | Signif | N | Taraf <br> $5 \%$ | $\begin{gathered} \hline \text { Signif } \\ \hline 1 \% \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5 \% | 1 \% |  | 5 \% | 1 \% |  |  |  |
| 3 | 0,997 | 0,999 | 27 | 0,381 | 0,487 | 55 | 0,266 | 0,345 |
| 4 | 0,950 | 0,990 | 28 | 0,374 | 0,478 | 60 | 0,254 | 0,330 |
| 5 | 0,878 | 0,959 | 29 | 0,367 | 0,470 | 65 | 0,244 | 0,317 |
| 6 | 0,811 | 0,917 | 30 | 0,361 | 0,463 | 70 | 0,235 | 0,306 |
| 7 | 0,754 | 0,874 | 31 | 0,355 | 0,456 | 75 | 0,227 | 0,296 |
| 8 | 0,707 | 0,834 | 32 | 0,349 | 0,449 | 80 | 0,220 | 0,286 |
| 9 | 0,666 | 0,798 | 33 | 0,344 | 0,442 | 85 | 0,213 | 0,278 |
| 10 | 0,612 | 0,765 | 34 | 0,339 | 0,436 | 90 | 0,207 | 0,270 |
| 11 | 0,602 | 0,735 | 35 | 0,334 | 0,430 | 95 | 0,202 | 0,261 |
| 12 | 0,576 | 0,708 | 36 | 0,329 | 0,424 | 100 | 0,195 | 0,256 |
| 13 | 0,553 | 0,684 | 37 | 0,325 | 0,418 | 125 | 0,176 | 0,230 |
| 14 | 0,532 | 0,661 | 38 | 0,320 | 0,413 | 150 | 0,159 | 0,210 |
| 15 | 0,514 | 0,641 | 39 | 0,316 | 0,408 | 175 | 0,148 | 0,194 |
| 16 | 0,497 | 0,623 | 40 | 0,312 | 0,403 | 200 | 0,138 | 0,181 |
| 17 | 0,482 | 0,606 | 41 | 0,308 | 0,398 | 300 | 0,113 | 0,148 |
| 18 | 0,468 | 0,590 | 42 | 0,304 | 0,393 | 400 | 0,098 | 0,128 |
| 19 | 0,456 | 0,575 | 43 | 0,301 | 0,389 | 500 | 0,088 | 0,115 |
| 20 | 0,444 | 0,561 | 44 | 0,297 | 0,384 | 600 | 0,080 | 0,105 |
| 21 | 0,433 | 0,549 | 45 | 0,294 | 0,380 | 700 | 0,074 | 0,097 |
| 22 | 0,423 | 0,517 | 46 | 0,291 | 0,376 | 800 | 0,070 | 0,091 |
| 23 | 0,413 | 0,526 | 47 | 0,288 | 0,372 | 900 | 0,065 | 0,086 |
| 24 | 0,404 | 0,515 | 48 | 0,284 | 0,368 | 1000 | 0,062 | 0,081 |
| 25 | 0,396 | 0,505 | 49 | 0,281 | 0,364 |  |  |  |
| 26 | 0,388 | 0,496 | 50 | 0,279 | 0,361 |  |  |  |

## Appendix 14

## HOMOGENEITY

Calculation of parameter to get variant of the sample are used homogeneity test by using formula:

$$
\mathrm{S}^{2}=\frac{n \Sigma x i^{2}-(\Sigma x i)}{n(n-1)}
$$

Hypotheses:

$$
\begin{aligned}
\mathrm{H}_{0} & : \delta_{1}^{2}=\delta_{2}^{2} \\
\mathrm{H}_{1} & : \delta_{1}^{2} \neq \delta_{2}^{2}
\end{aligned}
$$

## 1. Class VIII-3

| No. | $\mathbf{X i}$ | $\mathbf{X i}^{\mathbf{2}}$ |
| :---: | :---: | :---: |
| 1 | 64 | 4096 |
| 2 | 62 | 3844 |
| 3 | 64 | 4096 |
| 4 | 38 | 1444 |
| 5 | 33 | 1089 |
| 6 | 53 | 2809 |
| 7 | 56 | 3136 |
| 8 | 61 | 3721 |
| 9 | 54 | 2916 |
| 10 | 59 | 3481 |
| 11 | 55 | 3025 |
| 12 | 47 | 2209 |
| 13 | 22 | 484 |
| 14 | 64 | 4096 |
| 15 | 61 | 3721 |
| 16 | 60 | 3600 |
| 17 | 46 | 2116 |
| 18 | 60 | 3600 |
| 19 | 66 | 4356 |
| 20 | 41 | 1681 |
| 21 | 61 | 3721 |


| 22 | 40 | 1600 |
| :---: | :---: | :---: |
| 23 | 40 | 1600 |
| 24 | 44 | 1936 |
| 25 | 50 | 2500 |
| Total | $\sum \boldsymbol{X i} \mathbf{1 3 0 1}$ | $\sum \boldsymbol{X i}^{\mathbf{2}} \mathbf{7 0 8 7 7}$ |

$$
\begin{aligned}
& \mathrm{n} \quad=25 \\
& \sum x i=1301 \\
& \sum X i^{2}=70877
\end{aligned}
$$

So:

$$
\begin{aligned}
S^{2} & =\frac{n \Sigma x i^{2}-(\Sigma x i)}{n(n-1)} \\
& =\frac{25(70877)-(1301)}{25(25-1)} \\
& =\frac{1771925-1301}{25(24)} \\
& =\frac{1770624}{600} \\
& =2951.04
\end{aligned}
$$

## 2. Class VIII-7

| No. | $\mathbf{X i}$ | $\mathbf{X i}^{\mathbf{2}}$ |
| :---: | :---: | :---: |
| 1 | 44 | 1936 |
| 2 | 41 | 1681 |
| 3 | 48 | 2304 |
| 4 | 47 | 2209 |
| 5 | 47 | 2209 |
| 6 | 43 | 1849 |
| 7 | 41 | 1681 |
| 8 | 48 | 2304 |
| 9 | 50 | 2500 |
| 10 | 45 | 2025 |
| 11 | 41 | 1681 |
| 12 | 39 | 1521 |
| 13 | 39 | 1521 |
| 14 | 39 | 1521 |


| 15 | 47 | 2209 |
| :---: | :---: | :---: |
| 16 | 42 | 1764 |
| 17 | 60 | 3600 |
| 18 | 55 | 3025 |
| 19 | 32 | 1024 |
| 20 | 62 | 3844 |
| 21 | 56 | 3136 |
| 22 | 57 | 3249 |
| 23 | 52 | 2704 |
| 24 | 48 | 2304 |
| 25 | 65 | 4225 |
| Total | $\sum \boldsymbol{X i} \mathbf{1 1 8 8}$ | $\sum \boldsymbol{X i}^{\mathbf{2}} \mathbf{5 8 0 2 6}$ |

n $=25$
$\sum x i=1188$
$\sum \boldsymbol{X i} \boldsymbol{i}^{2}=58026$
So:

$$
\begin{aligned}
S^{2} & =\frac{n \sum x i^{2}-(\Sigma x i)}{n(n-1)} \\
& =\frac{25(58026)-(1188)}{25(25-1)} \\
& =\frac{1450650-1188}{25(24)} \\
& =\frac{1449462}{600} \\
& =2415.77
\end{aligned}
$$

The Formula was used to test hypothesis was:

1. VIII-3 and VIII-7 :

$$
\mathrm{F}=\frac{\text { The Biggest Variant }}{\text { The Smallest Variant }}
$$

So:

$$
\begin{aligned}
\mathrm{F} & =\frac{2951.04}{2415.77} \\
& =1.22
\end{aligned}
$$

After doing the calculation, researcher found that $\mathrm{F}_{\text {count }}=1.22$ with $\alpha 5 \%$ and $\mathrm{dk}=25 \& 25$ from the distribution list F , researcher found that $\mathrm{F}_{\text {table }}=2,060 \& 2,060$, cause $\mathrm{F}_{\text {count }}<\mathrm{F}_{\text {table }}(1.22<2.060 \& 2.060)$. So, there is no difference the variant between the VIII-3 class and VIII-7 class. It means that the variant is homogenous.

## Appendix 13

## Statistic Examine Look for Mean, Median, Modus, Range, Total of Classes, Interval,Standard Deviation and Result of the Normality

1. Score

| 22 | 32 | 33 | 39 | 39 | 39 | 39 | 40 | 40 | 41 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 41 | 41 | 41 | 42 | 43 | 44 | 44 | 45 | 46 | 47 |
| 47 | 47 | 47 | 48 | 48 | 50 | 50 | 52 | 53 | 54 |
| 55 | 56 | 56 | 56 | 57 | 59 | 60 | 60 | 60 | 60 |
| 61 | 61 | 61 | 62 | 62 | 64 | 64 | 65 | 65 | 66 |

2. Highest score : 62

Lowest score : 22
3. Range $=$ High Score - Low Score

$$
\begin{aligned}
& =62-22 \\
& =40
\end{aligned}
$$

4. Total of classes (BK)
$\mathrm{K}=1+3.3 \log \mathrm{n}$
$=1+3.3 \log 50$
$=1+3.3$ (1.698)
$=1+5.6034$
$=6.6034(7)$
5. Interval (i)

$$
\begin{aligned}
& \mathrm{i}=\frac{R}{B K} \\
& =\frac{40}{7} \\
& =5.71
\end{aligned}
$$

6. Mean

| Interval | $f_{i}$ | $x_{i}$ | $\left(f_{i} x_{i}\right)$ |
| :---: | :---: | :---: | :---: |
| $22-27$ | 1 | 24.5 | 24.5 |
| $28-33$ | 2 | 30.5 | 61 |
| $34-39$ | 3 | 36.5 | 109.5 |
| $40-45$ | 11 | 42.5 | 467.5 |
| $46-51$ | 10 | 48.5 | 485 |
| $52-57$ | 10 | 54.5 | 545 |
| $58-63$ | 9 | 60.5 | 545.5 |
| $64-69$ | 4 | 66.5 | 266 |


| Total | 50 | 364 | 2503 |
| :--- | :--- | :--- | :--- |

$$
\begin{aligned}
& (\mathrm{x})=\sum \frac{f i x i}{f i} \\
& =\frac{2503}{50} \\
& =50.06
\end{aligned}
$$

7. Median

| Interval | $f_{i}$ | $F k_{b}$ | $F k_{a}$ |
| :---: | :---: | :---: | :---: |
| $22-27$ | 1 | $50=\mathrm{N}$ | 1 |
| $28-33$ | 2 | 49 | 3 |
| $34-39$ | 3 | 47 | 6 |
| $40-45$ | 11 | 44 | 17 |
| $46-51$ | 10 | 33 | 27 |
| $52-57$ | 10 | 23 | 37 |
| $58-63$ | 9 | 13 | 46 |
| $64-69$ | 4 | 4 | $50=\mathrm{N}$ |
| Total 50 |  |  |  |

$$
\begin{aligned}
\mathrm{Me} & =\mathrm{b}+\mathrm{p}\left(\frac{\frac{1}{2} n-\mathrm{Fkb}}{f i}\right) \\
& =45.50+6\left(\frac{\frac{1}{2} 50-23}{10}\right) \\
& =45.50+6\left(\frac{25-23}{10}\right) \\
& =45.50+6\left(\frac{2}{10}\right) \\
& =45.50+6(0.2) \\
& =45.50+1.2 \\
& =46.7
\end{aligned}
$$

8. Modus

| Interval | $f_{i}$ |
| :---: | :---: |
| $22-27$ | 1 |
| $28-33$ | 2 |
| $34-39$ | 3 |
| $40-45$ | 11 |
| $46-51$ | 10 |
| $52-57$ | 10 |
| $58-63$ | 9 |
| $64-69$ | 4 |
| Total $50=\mathrm{N}$ |  |

$$
\begin{aligned}
\text { Modus } & =\mathrm{Bb}+\mathrm{p}\left(\frac{F 1}{F 1+F 2}\right) \\
= & 45.50+6\left(\frac{10}{10+9}\right) \\
& =45.50+6\left(\frac{10}{19}\right) \\
& =45.50+6(0.526) \\
& =45.50+3.156 \\
& =48.656
\end{aligned}
$$

9. Standard Deviation

| Interval | $f_{i}$ | $x_{i}$ | $\left(f_{i} x_{i}\right)$ | $x_{i}{ }^{2}$ | $f x_{i}{ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $22-27$ | 1 | 24.5 | 24.5 | 600.25 | 600.25 |
| $28-33$ | 2 | 30.5 | 61 | 3721 | 7442 |
| $34-39$ | 3 | 36.5 | 109.5 | 11.990 | 35970 |
| $40-45$ | 11 | 42.5 | 467.5 | 218556 | 2404116 |
| $46-51$ | 10 | 48.5 | 485 | 235.225 | 2352250 |
| $52-57$ | 10 | 54.5 | 545 | 297025 | 2970250 |
| $58-63$ | 9 | 60.5 | 545.5 | 296480 | 2668320 |
| $64-69$ | 4 | 66.5 | 266 | 70756 | 283024 |
| Total | 50 | 364 | 2503 | 1122375 | 10721972 |

$$
\begin{aligned}
S & =\frac{\sqrt{\sum f x i^{2}}}{\sum f-1} \\
& =\frac{\sqrt{10721972}}{50-1}
\end{aligned}
$$

$$
\begin{aligned}
&=\frac{\sqrt{3274.442}}{49} \\
&=\sqrt{57.2227}
\end{aligned}
$$

$$
=1.1678
$$

Table of Normality Data Test with Chi Kuadrat Formula

| Interval of Score | Real Upper Limit | Z - <br> Score | Limit of <br> Large of the Area | $\mathrm{f}_{\mathrm{h}}$ | $\mathrm{f}_{0}$ | $\begin{gathered} \left.\underline{f}_{\underline{0}}-f_{\underline{h}}\right) \\ f_{h} \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 64-69 | 69.5 |  | 0.7797 | 0.1358 |  |  |
|  |  | - |  |  | 1 | 0.679 |
| 58 - | 63.5 | 19.198 | 0.6439 | 0.3783 |  |  |
| 63 |  |  |  |  | 2 | 0.1891 |
|  | 57.5 | -14.06 | 0.2656 | 0.26549 |  |  |
| 52-57 |  |  |  |  | 3 | 0.1327 |
|  | 51.5 | -8.92 | 0.00011 | -0.09329 |  |  |
| 46-51 |  |  |  |  | 11 | -0.046 |
|  | 45.5 | -3.72 | 0.0934 | -0.3089 |  |  |
| 40-45 |  |  |  |  | 10 | -0.154 |
|  | 39.5 | 1.35 | 0.4023 | -0.1277 |  |  |
| 34-39 |  |  |  |  | 9 | -0.063 |
|  | 33.5 | 6.49 | 0.53 | 0.1206 |  |  |
| 28-33 |  |  |  |  | 4 | 0.603 |
|  | 27.5 | 11.6 |  | 0.1883 |  |  |
| 22-27 |  |  | 0.4094 |  |  | 0.941 |
|  |  | 16.7 |  |  |  |  |
|  |  |  |  |  |  | 2.281 |

Based on table above, reseracher found that $\mathrm{x}^{2}{ }_{\text {count }}=2.281$ while $\mathrm{x}_{\text {table }}^{2}=4.822$ cause $\mathrm{x}^{2}{ }_{\text {count }}<\mathrm{x}_{\text {table }}^{2}(2.281<4.822)$ with degree of freedom $\mathrm{dk}=7-3=4$ and significat level $\alpha=5 \%$. So distribution samplewas normal.

|  | 1 |  |  |  |  | 5 | 6 | 7 |  |  | 10 |  | 12 | 13 | , | 15 | 16 | 17 | 18 | 11 | 20 | 21 | 2 | 23 |  |  |  |  |  |  | 0 | 31 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 |
| 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 11 | 1 | 1 | 1 | 1 |  |  |  |  |  | 1 |  |  |  | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| 3 | 1 | 1 | 1 | 1 | 10 | 0 | 1 | 1 | 1 | 11 | 1 | 0 | 1 | 1 |  |  |  |  |  | 0 |  | 0 |  | 0 | 1 | 1 | 1 |  | 1 | 1 | 1 | 0 |
| 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 11 | 1 | 0 | 1 |  |  |  |  |  |  |  |  |  |  |  | 0 | 0 | 0 | 0 | 1 |  |  | 0 |
| 5 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |  | 0 | 0 | 0 |  |  | 1 | 1 | 1 | 1 | 0 |  |  | 0 |
| 6 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 10 | 1 | 0 | 1 | 1 |  |  |  | 0 |  | 0 |  |  |  |  |  | 1 | 0 |  | 1 |  | 0 | 0 |
| 7 | 1 |  | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  | 0 |  |  | 0 |
| 8 | 1 | 1 | 10 | 0 | 10 | 0 | 1 | 1 | 1 | 11 | 1 | 0 | 1 | 1 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0 |
| 9 | 1 | 1 | 11 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 |  |  |  | 0 |  |  |  |  | 0 |  |  |  |  |  | 1 |  |  | 0 |
| 10 | 1 |  |  | 0 | 1 | 1 | 1 | 1 | 1 | 11 | 0 | 0 | 1 | 1 |  |  |  |  |  |  |  |  |  |  |  |  | 0 |  | 1 |  |  | 0 |
| 1 | 1 | 1 | 11 | 1 | 0 | 1 | 1 | 1 | 0 | 01 | 1 | 0 | 0 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  | 0 |
| $12$ | 1 |  | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| 13 | 1 |  |  | 0 | 10 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 1 |  | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 |  |  |  | 1 |  |  |  |  | 0 |  |  |  |  | 0 |
| 15 | 1 |  | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |  | 0 | 1 |  |  |  | 1 |  |  |  |  |  |  |  |  |  | 0 |
|  | 1 |  | 1 | 1 | 10 | 0 | 1 | 1 | 1 | 110 | 0 | 0 | 1 | 1 | 1 |  | 0 | 1 |  |  |  | 0 |  |  |  |  |  | 0 | 1 |  | 0 | 0 |
|  | 0 |  | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |  |  | 1 | 0 |  |  | 1 |  |  | 0 |  | 0 |  |  |  |  | 0 |
|  | 1 |  |  | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0 | 0 |
|  | 1 | 1 | 11 | 1 | 10 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| 20 | 1 |  | 0 | 1 | 1 |  | 1 | 1 | 0 | 00 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 |  |  | 0 | 1 | 0 | 0 | 0 | 0 | 0 |  |  |  | 1 | 0 |
| 2 | 1 | 1 | 11 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 |  |  |  | 1 | 0 |  |  |  | 0 |  |  |  | 0 | 1 |
| 22 | 1 |  | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |  | 0 | 0 | 0 | 1 |  | 1 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23 | 1 |  | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |  | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
|  | 1 |  |  | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |  |  | 0 | 0 | 1 |  |  | 0 | 0 | 0 |  | 0 |  |  | 0 |
|  | 1 |  |  | 10 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 |  | 0 |  |  |  |  | 0 |  |  | 0 |  |  |  |  |  | 0 | 0 |
|  | 1 |  |  | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |  | 0 |  | 0 | 0 | 0 |  |  |  |  | 0 | 0 | 0 | 0 |
|  | 1 |  |  | 1 |  |  | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 |  | 0 |  | 0 |  | 0 |  | 0 |  |  | 0 | 0 |  | 0 | 0 |  | 0 |  |
|  | 1 |  |  | 10 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |  | 0 | 0 | 0 | 0 | 0 | 0 |  |  |  |  |  |  |  |  |  |  |
|  | 0 |  | 0 | 10 | 0 | 0 | 1 | 1 | 0 | 10 | 0 | 1 | 1 | 0 | 0 |  |  |  |  |  |  |  |  |  |  |  | 0 |  |  | 0 | 0 |  |
| 30 | 1 |  | 1 | 1 | 10 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |  |  | 0 |  |  |  | 1 |  | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |
| 3 | 1 |  |  | 1 | 10 | 0 | 1 | 1 | 1 | 10 | 0 | 0 | 1 | 0 | 1 | 1 |  | 0 |  |  |  | 0 | 0 | 1 | 0 |  |  | 0 |  |  | 1 | 0 |
|  | 1 |  |  | 0 | 10 | 0 | 0 | 1 | 1 | 10 | 0 | 0 | 0 | 0 | 1 |  |  | 0 | 0 | 0 |  | 1 |  | 1 | 0 |  | 0 | 0 |  |  | 1 | 0 |
|  | 1 |  |  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
|  | 1 |  |  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |  | 1 |  | 0 | 0 | 0 | 0 |
| 35 | 1 |  |  | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |  | 1 |  |  | 0 |  |  |  |  |  | 0 | 0 |
|  | 1 |  |  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |  | 0 | 0 |  |  |  |  |  | 1 |  | 0 | 0 |  |  |  | 0 |  | 1 | 0 |
| 3 | 1 |  | 11 | 1 | 10 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 |  | 0 |  |  |  | 1 |  |  | 0 | 0 | 0 |  |  | 0 | 1 | 0 |
| 38 | 1 |  |  | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 |  |  | 0 | 0 | 1 | 0 | 0 |  | 0 | 0 |  |  |  | 1 | 0 |
| 39 | 1 |  |  | 1 | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |  | 0 |  |  | 1 |  | 0 |  |  |  |  |  | 0 | 1 | 1 |
|  | 1 |  |  | 1 | 1 |  | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 |
| 41 | 1 | 1 |  | 1 | 10 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| 42 | 1 |  | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |  |  | 1 |  | 1 | 1 |  |  | 1 | 1 |
| 43 | 1 |  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  | 1 | 1 | 1 |  | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 44 | 0 |  | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 |
| 45 | 1 |  |  |  |  |  | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 |  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  | 0 | 1 |
| 46 |  |  |  |  |  |  |  |  |  |  | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |  | 0 | 1 | 1 | 0 | 0 |  |  |  |  |  | 1 | 1 |


| 47 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | ) | 0 |  | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 48 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 10 | 0 |  | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 |
| 49 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |  | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 |
| 50 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | - |  | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |


| 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 |
| 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 |
| 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 |
| 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 |
| 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 |
| 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 |
| 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |
| 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 |
| 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |  |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |


| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

$\qquad$

| 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | Y | $\mathbf{Y}^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 64 | 4096 |
| 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 62 | 3844 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 64 | 4096 |
| 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 38 | 1444 |
| 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 33 | 1089 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 53 | 2809 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 56 | 3136 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 61 | 3721 |
| 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 54 | 2916 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 59 | 3481 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 55 | 3025 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 47 | 2209 |
| 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 22 | 484 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 64 | 4096 |
| 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 61 | 3721 |
| 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 60 | 3600 |
| 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 46 | 2116 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 60 | 3600 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 66 | 4356 |
| 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 41 | 1681 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 61 | 3721 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 40 | 1600 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 40 | 1600 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 44 | 1936 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 50 | 2500 |
| 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 44 | 1936 |
| 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 41 | 1681 |
| 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 48 | 2304 |
| 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 47 | 2209 |
| 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 47 | 2209 |
| 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 43 | 1849 |
| 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 41 | 1681 |
| 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 48 | 2304 |
| 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 50 | 2500 |
| 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 45 | 2025 |
| 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 41 | 1681 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 39 | 1521 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 39 | 1521 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 39 | 1521 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 47 | 2209 |
| 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 42 | 1764 |
| 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 60 | 3600 |
| 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 55 | 3025 |
| 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 32 | 1024 |
| 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 62 | 3844 |
| 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 56 | 3136 |


| 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 57 | 3249 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 52 | 2704 |
| 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 48 | 2304 |
| 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 65 | 4225 |


| No. | X | Y | $\mathrm{X}^{2}$ | $\mathrm{Y}^{2}$ | XY |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 166 | 64 | 27556 | 4096 | 10624 |
| 2 | 152 | 62 | 23104 | 3844 | 9424 |
| 3 | 157 | 64 | 24649 | 4096 | 10048 |
| 4 | 147 | 38 | 21609 | 1444 | 5586 |
| 5 | 170 | 33 | 28900 | 1089 | 5610 |
| 6 | 152 | 53 | 23104 | 2809 | 8056 |
| 7 | 128 | 56 | 16384 | 3136 | 7168 |
| 8 | 162 | 61 | 26244 | 3721 | 9882 |
| 9 | 152 | 54 | 23104 | 2916 | 8208 |
| 10 | 166 | 59 | 27556 | 3481 | 9794 |
| 11 | 138 | 55 | 19044 | 3025 | 7590 |
| 12 | 165 | 47 | 27225 | 2209 | 7755 |
| 13 | 156 | 22 | 24336 | 484 | 3432 |
| 14 | 144 | 64 | 20736 | 4096 | 9216 |
| 15 | 181 | 61 | 32761 | 3721 | 11041 |
| 16 | 137 | 60 | 18769 | 3600 | 8220 |
| 17 | 156 | 46 | 24336 | 2116 | 7176 |
| 18 | 132 | 60 | 17424 | 3600 | 7920 |
| 19 | 151 | 66 | 22801 | 4356 | 9966 |
| 20 | 160 | 41 | 25600 | 1681 | 6560 |
| 21 | 128 | 61 | 16384 | 3721 | 7808 |
| 22 | 153 | 40 | 23409 | 1600 | 6120 |
| 23 | 162 | 40 | 26244 | 1600 | 6480 |
| 24 | 132 | 44 | 17424 | 1936 | 5808 |
| 25 | 139 | 50 | 19321 | 2500 | 6950 |
| 26 | 149 | 44 | 22201 | 1936 | 6556 |
| 27 | 158 | 41 | 24964 | 1681 | 6478 |
| 28 | 168 | 48 | 28224 | 2304 | 8064 |
| 29 | 149 | 47 | 22201 | 2209 | 7003 |
| 30 | 156 | 47 | 24336 | 2209 | 7332 |
| 31 | 166 | 43 | 27556 | 1849 | 7138 |
| 32 | 176 | 41 | 30976 | 1681 | 7216 |
| 33 | 194 | 48 | 37636 | 2304 | 9312 |
| 34 | 176 | 50 | 30976 | 2500 | 8800 |
| 35 | 187 | 45 | 34969 | 2025 | 8415 |
| 36 | 153 | 41 | 23409 | 1681 | 6273 |
| 37 | 163 | 39 | 26569 | 1521 | 6357 |
| 38 | 147 | 39 | 21609 | 1521 | 5733 |
| 39 | 141 | 39 | 19881 | 1521 | 5499 |
| 40 | 161 | 47 | 25921 | 2209 | 7567 |
| 41 | 161 | 42 | 25921 | 1764 | 6762 |
| 43 | 141 | 60 | 19881 | 3600 | 8460 |
| 145 | 55 | 21025 | 3025 | 7975 |  |

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| 44 | 155 | 32 | 24025 | 1024 | 4960 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 45 | 193 | 62 | 37249 | 3844 | 11966 |
| 46 | 203 | 56 | 41209 | 3136 | 11368 |
| 47 | 145 | 57 | 21025 | 3249 | 8265 |
| 48 | 147 | 52 | 21609 | 2704 | 7644 |
| 49 | 168 | 48 | 28224 | 2304 | 8064 |
| 50 | 156 | 65 | 24336 | 4225 | 10140 |
| 7844 |  |  |  |  | 2489 |
| 61528336 | 6195121 |  |  |  |  |


| 19489450 | 19523716 | -34266 | 0.837 | 0.700569 |
| ---: | ---: | ---: | ---: | ---: |
| 62197800 | 61528336 | 669464 |  | 70.0569 |
| 6445150 | 6195121 | 250029 |  |  |
|  |  | 1673854111 |  |  |
|  | 40912.7622 |  |  |  |
|  | -0.83753817 |  |  |  |


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