

# **A Study of Challenges Faced by Standard 6th Students in Mathematics**

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**Abstract:** *Action Research is a method of systematic enquiry that teachers undertake as researchers of their own practice. Action researcher may also be called a cycle of action or cycle of inquiry, since it typically follows a predefined process that is repeated over time. A simple illustrative example – identify a problem to be studied. Collect data on the problem. Organize analyze & interpret the data. It helps teachers develop new knowledge directly related to their classrooms, promotes, reflective teaching & thinking, expands teacher’s pedagogical repertoire, puts teachers in charge of their craft, reinforces the link between practice & student achievement.*

**Keywords:** Action Research

## **I. INTRODUCTION**

Action Research is a method of systematic enquiry that teachers undertake as researchers of their own practice. Action researcher may also be called a cycle of action or cycle of inquiry, since it typically follows a predefined process that is repeated over time. A simple illustrative example – identify a problem to be studied. Collect data on the problem. Organize analyze & interpret the data. It helps teachers develop new knowledge directly related to their classrooms, promotes, reflective teaching & thinking, expands teacher’s pedagogical repertoire, puts teachers in charge of their craft, reinforces the link between practice & student achievement.

Educational research provides a vast landscape of knowledge on topics related to teaching and learning, curriculum and assessment, students’ cognitive and affective needs, cultural and socio-economic factors of schools, and many other factors considered viable to improving schools. Educational stakeholders rely on research to make informed decisions that ultimately affect the quality of schooling for their students. Accordingly, the purpose of educational research is to engage in disciplined inquiry to generate knowledge on topics significant to the students, teachers, administrators, schools, and other educational stakeholders. Just as the topics of educational research vary, so do the approaches to conducting educational research in the classroom. Your approach to research will be shaped by your context, your professional identity, and paradigm (set of beliefs and assumptions that guide your inquiry). These will all be key factors in how you generate knowledge related to your work as an educator.

Action research is an approach to educational research that is commonly used by educational practitioners and professionals to examine, and ultimately improve, their pedagogy and practice. In this way, action research represents an extension of the reflection and critical self-reflection that an educator employs on a daily basis in their classroom. When students are actively engaged in learning, the classroom can be dynamic and uncertain, demanding the constant attention of the educator.

### **Rationale / Background:-**

Students ‘Mathematics’ performance is one of main concern in mathematics education. Mathematics has always been given special attention in school as the nature of the subject is related to many other fields and disciplines moreover, student’s mathematics achievement has often been the focus and is seen a critical global in many countries. Some were finding it easier to learn while some were not enjoying. Besides being perceived as a tough subject problem in mathematics learning has also been related to the lack of regulation skills among students learning math. The rapid changes of the education system and delivery method give a huge impact to students.

Based on the above mentioned statements the current study was conducted to explore the daily challenges faced by students in the process of learning mathematics. The selection of this topic gives an idea on reliable basis through

process of survey. The topic provides understating about students psychological “A Study of Challenges faced By Standard 6th Students in Mathematics.” Gives an account of student’s hardship their way of learning to develop better research and strategic policies to enhance their learning .why 6<sup>th</sup> standard students? They are mature enough to know much between a study of challenges faced by standard 6<sup>th</sup> student in mathematics and to know the real problems based on their understanding.

## **II. NEED OF THE STUDY**

Mathematics provides an effective way of building mental discipline and encourage logical reasoning and mental rigor. In additional mathematical knowledge plays a crucial role in understanding the contents of other school subjects such as science, social studies and even music and art.

## **III. STATEMENT OF THE PROBLEM**

“A study of challenges faced By Standard 6th Students in Mathematics.”

I spare maximum hours to study Mathematics.

I have doubts even after repeating the same topic many times.

I feel sleepy while learning Mathematics.

I cannot manage time to solve sums.

I find difficult to solve Mathematics exercise without any help.

I forget the concept in Mathematics.

I am not able to ask doubts to my math’s Teacher.

My math’s teacher helps me in solving sums.

I feel embarrassed when I am not able to solve math’s sum on the board.

I am unable to draw axis of symmetry for geometrical figure.

I am not able to solve word problems in Mathematics.

I feel Math’s is not useful in our daily life.

I am able to draw graph based on the given information.

I am able to show natural numbers, whole numbers,integers on a Number line.

I find it difficult to construct figures with accurate measurements.

I am unable to recall formula during examination.

My parents want good marks in Mathematics.

I substitute wrongvalues in a formula.

I am unable to draw perpendicular bisector.

I do not understand language and symbols used in Mathematics.

I tend to do mistake while cross multiplying to solve an equation.

I get confused between HCF and LCM.

I am unable to handle geometrical instrument while drawing construction.

I don't wanted to solve extra question.

## **IV. OBJECTIVE OF THE STUDY**

To study the challenge faced by standard VI students in mathematics.

To find out reasons due to which standard VI students face challenges in mathematics.

To suggest remedies to reduce challenges in mathematics for standard VI students.

## **V. PLAN OF ACTION**

\* The challenges faced by the school students in mathematics hasbeen observed.

\*Identifying the research problem or question.

\*Select the probable causes of mathematics phobia among children.

\*Formulation of Research Questions

\*Gathering the necessary information.

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\*Give meaningful suggestions.

**VI. TIME/SCHEDULE**

Date	Time	Schedule
1 <sup>st</sup> April, 2023	2 pm to 5pm	Action Research(workshop)
15th April, 2023	6 pm to 7pm	Action Research(Guidance)
21st April, 2023	2 pm to 5pm	Objectives of the study
24th April, 2023	2 pm to 3 pm	Tools of the study(preparation of the questionnaire)
26th April, 2023	2 pm to 3 pm	Approval of Tools of the Study (Questionnaire)
27th April, 2023	4 pm to 6pm	Approval of Tools of the study(Google Form)
30 <sup>th</sup> April, 2023	2 pm to 3 pm	Distribution of the Questionnaire
1st May ,2023	9 am to 9pm	Data Collection
2nd May ,2023	9 am to 9pm	Data Analysis and interpretation
3rd May ,2023	9 am to 9pm	Data Analysis and interpretation
13th May ,2023	2 pm to 3pm	Discussion of Report Writing
26th May ,2023	12 pm to 10pm	Writing part
27th May ,2023	2pm to 6 pm	Writing part
		Other work with spiral binding

**VII. SAMPLE OF THE STUDY**

I have selected 35 students for surveys.  
I have completed my survey by online.

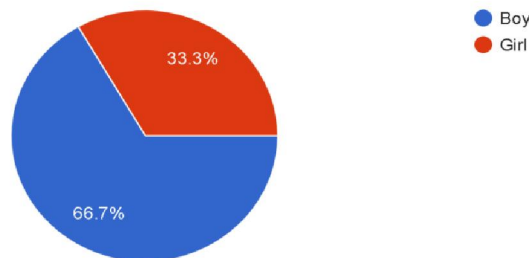
**VIII. TOOLS OF THE STUDY**

I have prepared Questionnaire of closed ended question like Yes & No type question.  
I have prepared 25 questions based to study the challenge faced by standard VI students in mathematics & prepared a questionnaire.

**IX. DATA COLLECTION**

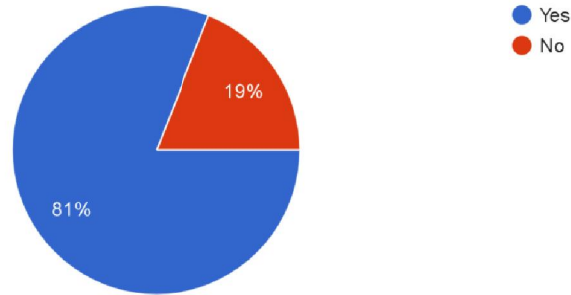
After collecting the data & survey from the student pie chart is prepared for analysis.

Gender  
21 responses



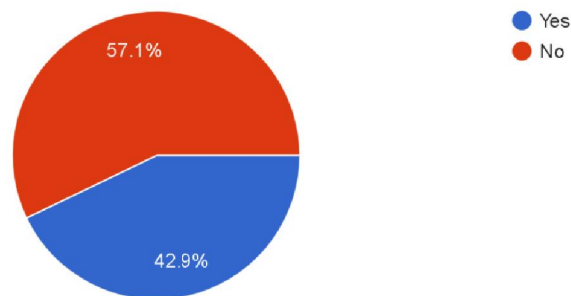
I spare maximum hours to study Mathematics.

21 responses



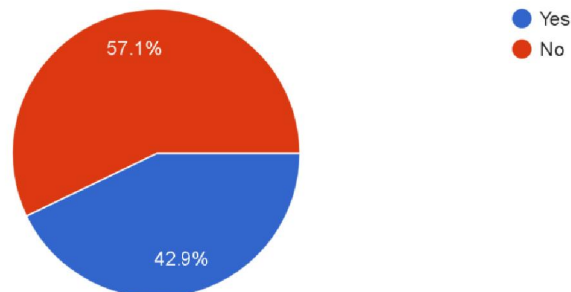
I have doubts even after repeating the same topic many times.

21 responses

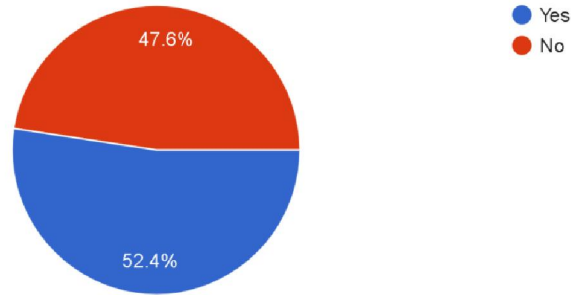


I feel sleepy while learning Mathematics.

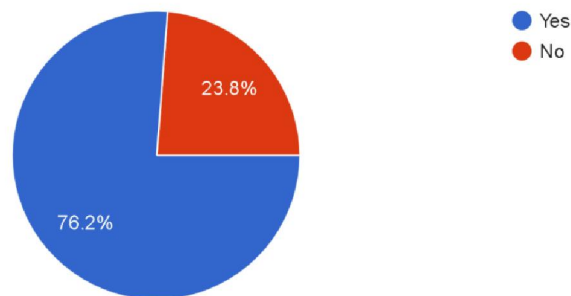
21 responses



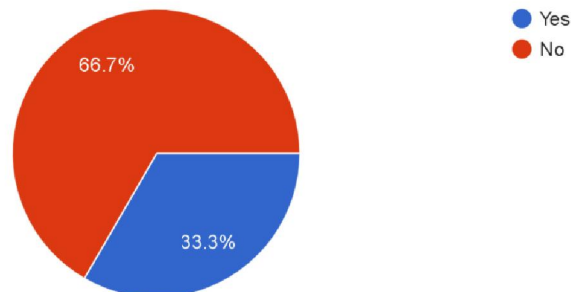
I cannot manage time to solve sums.  
21 responses



I find difficult to solve Mathematics exercise Without any help.  
21 responses

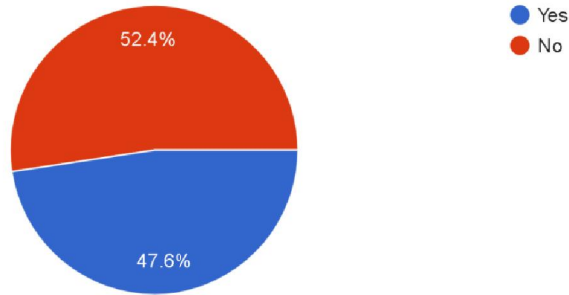


I forget the concept in Mathematics.  
21 responses



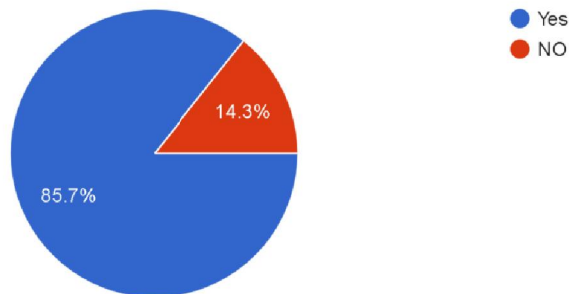
I am not able to ask doubts to my Maths Teacher.

21 responses



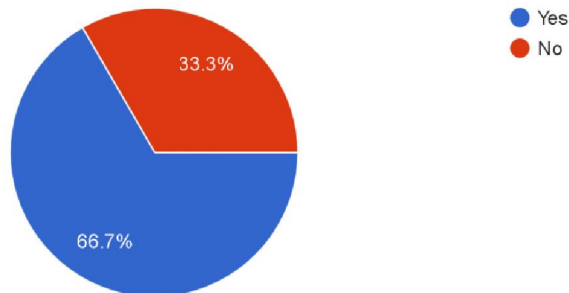
My maths teacher helps me in solving sums.

21 responses

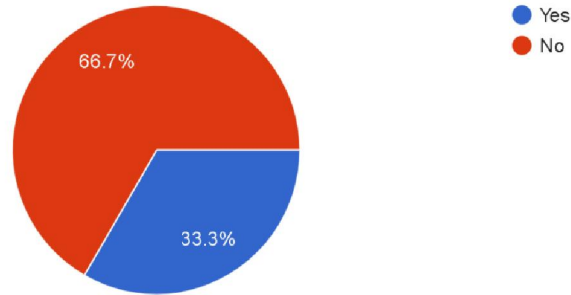


I feel embarassed when I am not able to solve maths sum on the board.

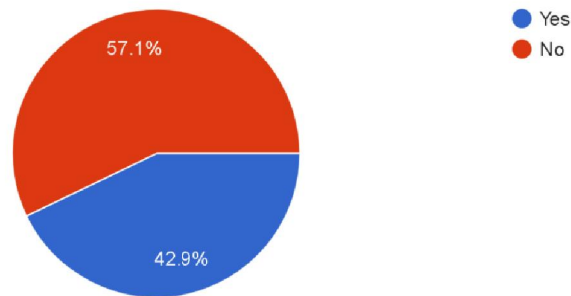
21 responses



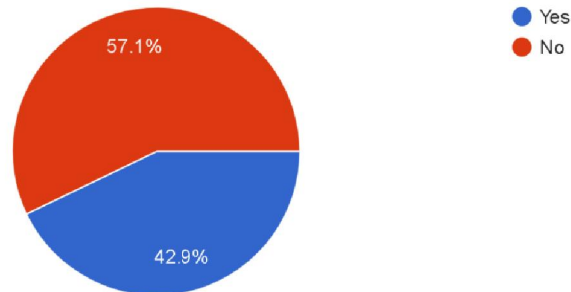
I am unable to draw axis of symmetry for geometrical figure.  
21 responses



I am not able to solve word problems in Mathematics.  
21 responses

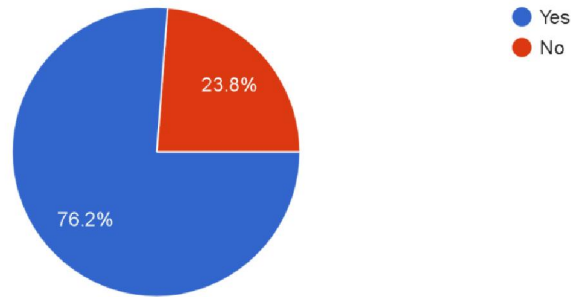


I feel Maths is not useful in our daily life.  
21 responses



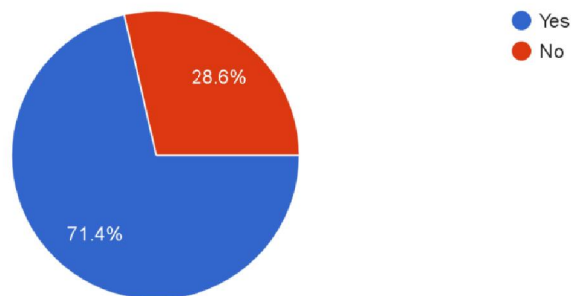
I am able to draw graph based on the given information.

21 responses



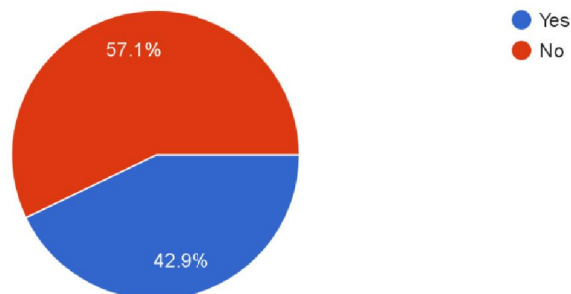
I am able to show natural numbers, whole numbers, integers on a Number line.

21 responses



I find it difficult to construct figures with accurate measurements.

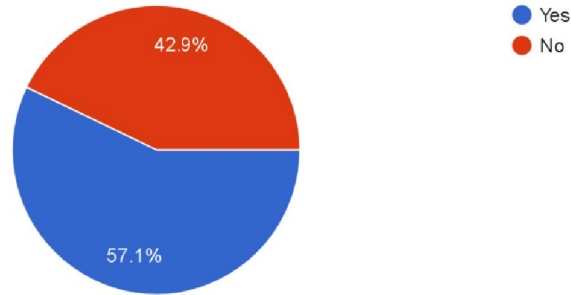
21 responses





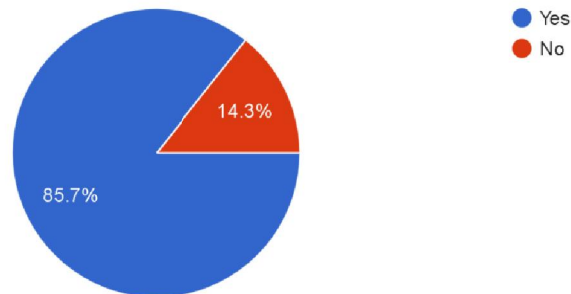
I am unable to recall formula during examination.

21 responses



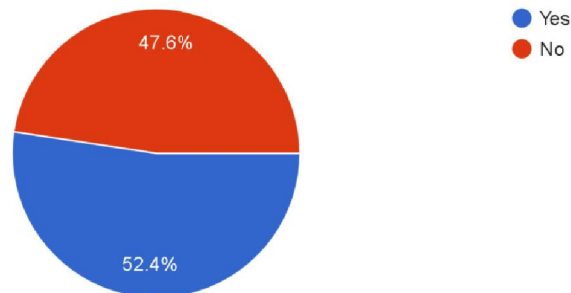
My parents wants good marks in Mathematics.

21 responses



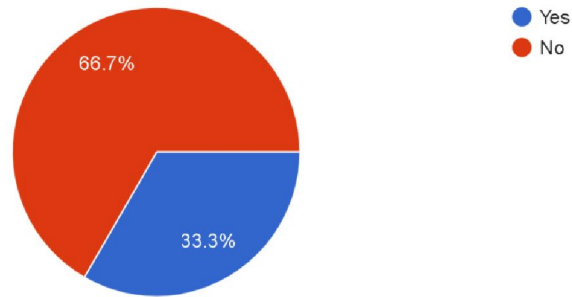
I substitute wrong values in a formula.

21 responses



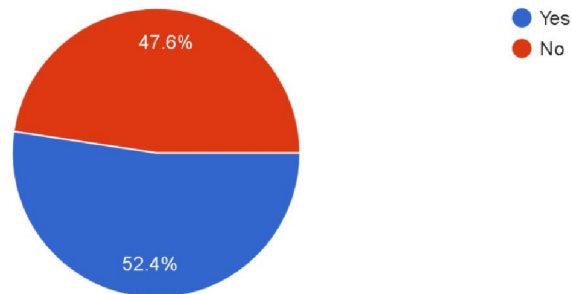
I am unable to draw perpendicular bisector.

21 responses



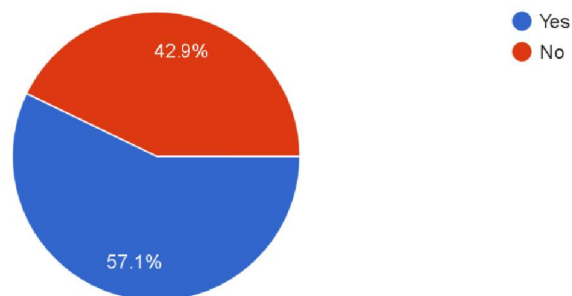
I do not understand language and symbols used in Mathematics.

21 responses



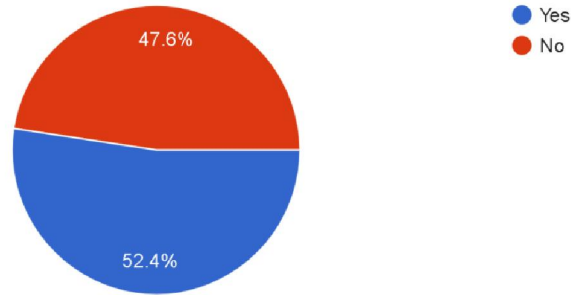
I tend to do mistake while cross multiplying to solve an equation.

21 responses



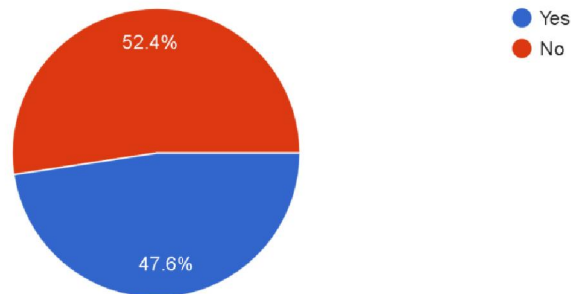
I get confused between HCF and LCM.

21 responses



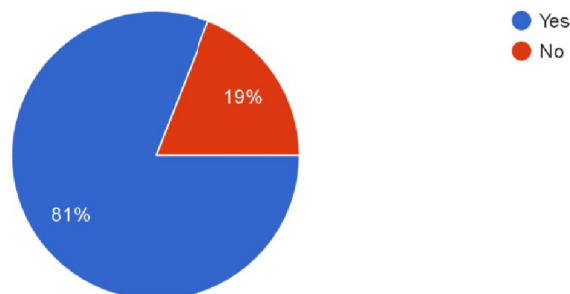
I am unable to handle geometrical instrument while drawing construction.

21 responses



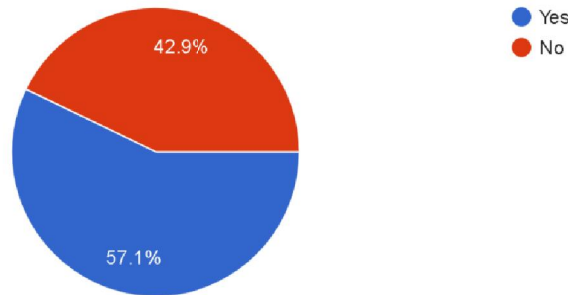
I do silly mistake in solving Mathematics.

21 responses



I don't wanted to solve extra question.

21 responses



### X. DATA ANALYSIS AND INTERPRETATION

After the analysis of the survey I found that for,

Q1.I spare maximum hours to study Mathematics.

**Average** numbers of students are not spare maximum hours to study Mathematics.

The **maximum** number of student spare maximum hours to study Mathematics.

There are **very less** students who never spare maximum hours to study Mathematics.

Q2. I have doubts even after repeating the same topic many times.

**Average** numbers of studentsdoubts even after repeating the same topic many times

The **maximum** number of student not doubts even after repeating the same topic many times

There are **very less** students who doubts even after repeating the same topic many times

Q3.I feel sleepy while learning Mathematics.

**Average** numbers of students feel sleepy while learning Mathematics.

The **maximum** numbers of students not feel sleepy while learning Mathematics.

There are **very less** students feel sleepy while learning Mathematics.

Q4.I cannot manage time to solve sums.

**Average** numbers of students can manage time to solve sums.

The **maximum** number of student cannot manage time to solve sums.

There are **very less** students cannot manage time to solve sums.

Q5.I find difficult to solve Mathematics exercise without any help.

**Average** numbers of studentsfind difficult to solve Mathematics exercise without any help.

The **maximum** number of student not find difficult to solve Mathematics exercise without any help.

There are **very less** students find difficult to solve Mathematics exercise without any help.

Q6.I forget the concept in Mathematics.

**Average** numbers of students forget the concept in Mathematics.

The **maximum** numbers of student notforget the concept in Mathematics.

There are **very less** students who forget the concept in Mathematics.

Q7.I am not able to ask doubts to my math's Teacher.

**Average** numbers of students not able to ask doubts to my math's Teacher.

The **maximum** number of student able to ask doubts to my math's Teacher..

There are **very less** students not able to ask doubts to my math's Teacher.

Q8. My math's teacher helps me in solving sums.

**Average** numbers of students not math's teacher helps me in solving sums.

The **maximum** number of student math's teacher helps me in solving sums.

There are **very less** student math's teacher helps in solving sums

Q9. I feel embarrassed when I am not able to solve math's sum on the board.

**Average** numbers of students feel embarrassed when they not able to solve math's sum on the board.

The **maximum** number of student feel not embarrassed when they solve math's sum on the board.

There are **very less** students feel embarrassed when they not able to solve math's sum on the board.

Q10. I am unable to draw axis of symmetry for geometrical figure.

**Average** numbers of students unable to draw axis of symmetry for geometrical figure.

The **maximum** number of student able to draw axis of symmetry for geometrical figure.

There are **very less** students unable to draw axis of symmetry for geometrical figure

Q11. I am not able to solve word problems in Mathematics.

**Average** numbers of students not able to solve word problems in Mathematics.

The **maximum** number of student able to solve word problems in Mathematics.

There are **very less** students not able to solve word problems in Mathematics.

Q12. I feel Math's is not useful in our daily life.

**Average** numbers of students feel Math's is not useful in our daily life.

The **maximum** number of student feel Math's is useful in our daily life.

There are **very less** students feel Math's is not useful in our daily life.

Q13. I am able to draw graph based on the given information.

**Average** numbers of students not able to draw graph based on the given information.

The **maximum** number of student able to draw graph based on the given information.

There are **very less** students not able to draw graph based on the given information.

Q14. I am able to show natural numbers, whole numbers, integers on a Number line.

**Average** numbers of students are able to show natural numbers, whole numbers, integers on a Number line.

The **maximum** numbers of student not able to show natural numbers, whole numbers, integers on a number line.

There are **very less** students able to show natural numbers, whole numbers, integers on a number line.

Q15. I find it difficult to construct figures with accurate measurements.

**Average** numbers of students find it difficult to construct figures with accurate measurements.

The **maximum** number of not find it difficult to construct figures with accurate measurements.

There are **very less** students who find it difficult to construct figures with accurate measurements.

Q16. I am unable to recall formula during examination.

**Average** numbers of students unable to recall formula during examination.

The **maximum** numbers of student able to recall formula during examination.

There are **very less** students unable to recall formula during examination.

Q17. My parent's wants good marks in Mathematics.

**Average** numbers of students are parent's doesn't wants good marks in Mathematics.

The **maximum** number of student parent's wants good marks in Mathematics.

There are **very less** students parent's doesn't wants good marks in Mathematics

Q18. I substitute wrong values in a formula.

**Average** numbers of students not substitute wrong values in a formula

The **maximum** number of student substitute wrong values in a formula.

There are **very less** students substitute wrong values in a formula.

Q19. I am unable to draw perpendicular bisector.

**Average** numbers of students are unable to draw perpendicular bisector.

The **maximum** number of student able to draw perpendicular bisector.

There are **very less** students unable to draw perpendicular bisector.

Q20. I do not understand language and symbols used in Mathematics.

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**Average** numbers of students understand language and symbols used in Mathematics.

The **maximum** numbers of student do not understand language and symbols used in Mathematics.

There are **very less** students understand language and symbols used in Mathematics

Q21.I tend to do mistake while cross multiplying to solve an equation.

**Average** numbers of students are tend to don't mistake while cross multiplying to solve an equation.

The **maximum** numbers of students tend to do mistake while cross multiplying to solve an equation.

There are **very less** students tend to mistake while cross multiplying to solve an equation.

Q22.I get confused between HCF and LCM.

**Average** numbers of students not get confused between HCF and LCM.

The **maximum** number of student get confused between HCF and LCM..

There are **very less** students not get confused between HCF and LCM.

Q23.I am unable to handle geometrical instrument while drawing construction.

**Average** numbers of students are able to handle geometrical instrument while drawing construction.

The **maximum** number of student unable to handle geometrical instrument while drawing construction.

There are **very less** students unable to handle geometrical instrument while drawing construction.

Q24.I do silly mistake in solving Mathematics.

**Average** numbers of students are don't silly mistake in solving Mathematics.

The **maximum** number of student do silly mistake in solving Mathematics.

There are **very less** students who don't silly mistake in solving Mathematics.

Q25.I don't wanted to solve extra question.

**Average** numbers of students are wanted to solve extra question.

The **maximum** numbers of students don't wanted to solve extra question.

There are very less students who wanted to solve extra question.

## **XI. FINDING OF THE STUDY**

\*sometimes students feel like they understand the concept during the lecture, but while solving the problem they find it difficult to solve the problem.

\*It's important for students to understand a problem then solve it on your own, and practice it weekly/monthly.

## **XII IMPLICATIONS**

\* Mistakes such as number additions, substitutions, transpositions, omissions, and reversals in writing, reading, and recalling numbers.

\*Difficulty with abstract concepts of time and direction.

\*Inability to recall schedules and sequences of past or future events.

\*Being chronically early or late.

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