



Maths Olympiad

Downloadable Mock

Level 8

General Instructions:

1. Please note this is a mock paper. The questions may differ in the final exam. This is only for your practice.
2. The exam should be answered on the question paper itself.
3. Please read the questions carefully before answering them.

Student Details:

Name: _____

Level: _____

LMS ID: _____

School Name: _____

Q 1. Answer the following.

1. What is $(9^{20} - 1) (9^{15} - 1) (9^{10} - 1) (9^5 - 1) (9^0 - 1)$

2. The square root of 40.5769 is

3. What is

$$\frac{\left(\frac{1}{3}\right)^0}{\left(\frac{1}{3}\right)^1 + \left(\frac{1}{3}\right)^{-1} + 1}$$

4. In a certain code, MONKEY is written as XDJMNL. The word TIGER in the same code would be

Q2. Answer the following.

- a) The angles of a quadrilateral are in the ratio 4:9:11:12. Find the measure of these angles.
- b) Find the number of sides of a regular polygon whose each interior angle measure 135°

Q3. Solve the below given word problems.

1. A bookseller bought books worth Rs. 27000 of which he sold one-third at a profit of 30% and one-third at a profit of 20%. He incurred a loss of 10% on the remaining books. Calculate his profit or loss per cent in the whole transaction.

2. The simple interest on a certain amount of money is $\frac{1}{4}$ of the amount in 2 years. Find the rate per cent.
3. If $x:y = 2:3$ and $y:z = 2:5$, find $x:y:z$.
4. A completes $\frac{3}{5}$ th of a certain work in 9 days whereas B completes $\frac{2}{3}$ rd of the same work in 8 days. If both work together, then in how many days would they finish the work.

Q4. Construct as asked.

1. Construct a quadrilateral ABCD such that $\angle B = 90^\circ$, $\angle D = 40^\circ$, $AB = BC = 5$ cm.

Q5. Solve the following.

1. A wire in the form of an equilateral triangle of area $36\sqrt{3}$ sq. cm is straightened and then transformed into a square. Find the area enclosed by the square.

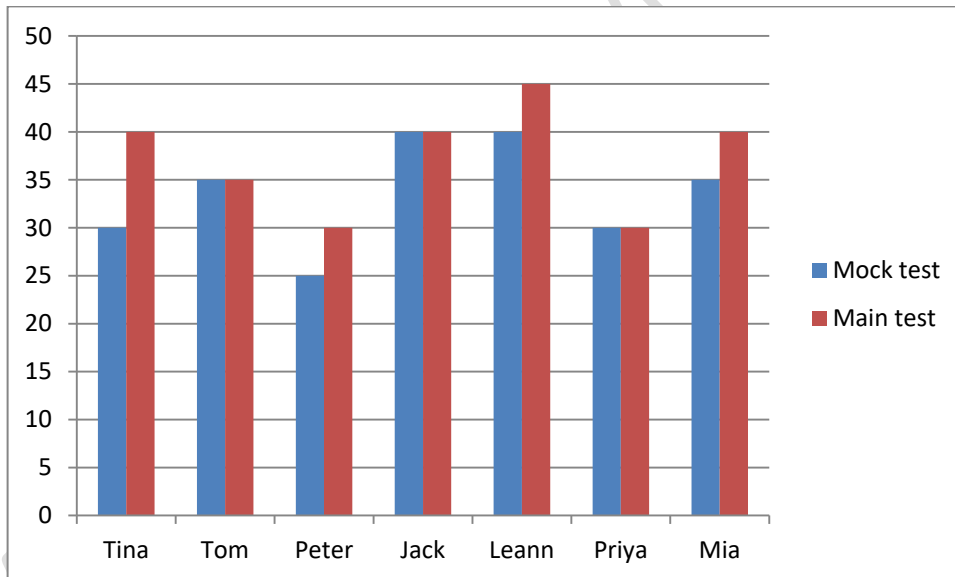
2. Area of a trapezium is 4875 cm^2 whose one of the parallel sides is 3.02 cm in length. If the distance between the parallel sides is 25 m , find the other parallel side.

Q6. Find the mean, median and mode of the below given data.

490, 105, 632, 814, 500, 490, 350, 264, 278, 780

Q7. From a pack of 52 playing cards, a card is drawn at random. Find the probability of obtaining i) an ace ii) a red faced card

Q8. Observe the graph shown below and answer the following questions.



1. What information does the graph represent?
2. The scores in the main test were the same or better than the mock test. This statement is –
 - a. True
 - b. False
 - c. Can't say

3. Who scored better marks in the main test as compared to the mock test?

4. Who scored the highest marks in which test?

Middle School Olympiad 2020-21