

Maharashtra Board Class VI Mathematics Board Paper – 1

Time: 2 hrs

Total Marks: 60

Note:

1. All questions are compulsory.
2. Use of calculator is not allowed.

Q1.Solve the following:

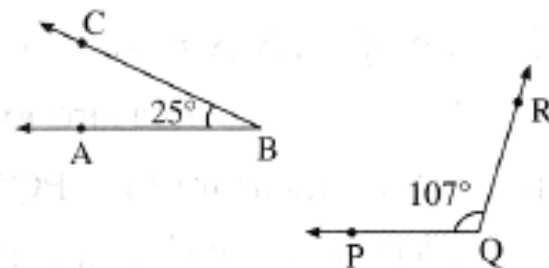
[12 × 1 = 12]

1. Find the value of 5^4 .
2. Write 25 : 45 in the simplest ratio.
3. Find the value of 50 percent of 84.
4. Write all the prime numbers between 1 to 100 and count them.
5. Find the L.C.M. of 48 and 16.
6. Simplify: $12 \times 14 \div 7$.
7. Write in index form: Base 6, index 4.
8. Solve: $38.974 + 9.408$
9. Convert 0.83 into percentage.
10. If length of a rectangle is 12 cm and breadth 10 cm, then find its area.
11. Find the diameter of a circle if its radius is 7 cm.
12. How many exterior angles does a triangle have in all?

Q2.Solve the following:

[8 × 2 = 16]

1. Name the bigger angle from the given pair.

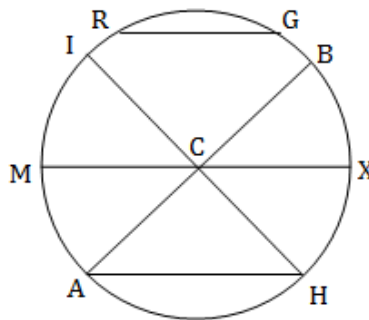


2. If $p = 3$ and $q = 5$, find the value of $p^2 + q^2$.
3. The perimeter of a rectangular pool is 100 m and its length is 30 m. Find its breadth.
4. In the figure alongside, four points P, Q, R and S are given. Draw lines, each passing through any two of the points. Then, answer these questions:

(1) Name the lines whose point of concurrence is Q.

(2) Which of the lines PS, SR, QS and PR are concurrent?
5. Simplify: $5 \times [10 + (-13)]$
6. In ΔRST , $m\angle R = 70^\circ$, $m\angle S = 30^\circ$. Find $m\angle T$.
7. A room is 5 m broad and 5.2 m long. Find the area of a mat that would cover its entire floor.

8. C is the centre of the circle shown below. Name the radii, chords and diameter of the circle.



Q3.Solve the following [Any five]

[5 × 3 =15]

1. In a certain housing colony, a tank which is 2.5 m long, 2 m broad and 3 m high was made for collecting rainwater. How much water will it hold?
2. If a shopkeeper suffered a loss of Rs. 60 on selling 15 shirts for Rs. 2340, find the cost of each shirt.
3. Draw a line segment of 6.5 cm and draw its perpendicular bisector.
4. Simplify: $16 \times 81 + 34 \times 81$
5. If the perimeter of a square room is 16 m, what is the length of each of its side?
6. Find the value of x in the following proportion:
 $8:12 = 2 : x$.
7. A student passes an exam if she scores a minimum of 35% of the maximum marks. What are the passing marks in an exam in which the maximum marks are 800?

Q4.Solve the following [Any three]

[3 × 4 =12]

1. During Diwali, 75 of the 625 letters collected from a postbox were greeting cards. What percentage of the letters were greeting cards?
2. Divide: $784.8 \div 0.4$
3. Hanif bought a case of 50 apples for Rs. 260. He sold them all at Rs. 5 per apple. How much was his profit or loss?
4. One playground is 120 m long and 52 m wide. The other one is 110 m long and 62 m wide. Which ground is bigger?

Q5.Solve the following [Any one]

[1 × 5 = 5]

1. The number of different types of books available in a library is shown in the table below. Draw a corresponding bar graph. Write the numbers 0, 25, 50, 75... at 1 cm interval on the y-axis:

Types of books	Story books	Novels	Plays	Poetry
Number of books	250	200	150	100

2. A wire is bent into a rectangle of length 50 cm and breadth 30 cm. If the wire is again straightened and then bent into a square, how many centimeters would each of its side measure?