

# Maharashtra Board Class VII Mathematics Board Paper – 2

Time: 2 hrs

Total Marks: 60

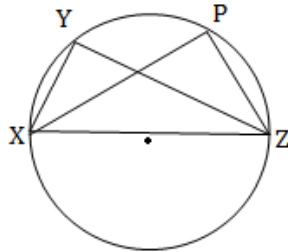
Note:

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

Q1.Solve the following:

[12 × 1 = 12]

1. Solve the equation:  $y - 2 = 9$
2. Divide:  $7^{19} \div 7^4$
3. Simplify:  $\frac{5}{9} + \frac{8}{9}$
4. Find the square root of  $2\frac{1}{4}$ .
5. Multiply:  $4 \times (x + 2)$
6. Akshay bought some article for Rs. 70 and sold it for Rs. 90. What was his profit?
7. Find the area of a square if its side measures 48.2 cm.
8. In the figure,  $m\angle XYZ = 100^\circ$ , then find  $m\angle XZP$ .



9. The side of a cube is 5.5 cm. What is its total surface area?
- 10.If length and breadth of a rectangle is 7 cm and 9 cm, find its area.
- 11.If Principal = Rs. 1260 and Interest = Rs. 126, then find Amount.
- 12.Find the square of  $(-5.13)$ .

Q2.Solve the following:

[8 × 2 = 16]

1. The side of a square room is 6.5 m. Find the area and the perimeter of its floor.
2. Multiply:  $4(y^2 - 2y + 7)$
3. The measure of one angle of a quadrilateral is  $100^\circ$ . What is the sum of the measure of the remaining angles?
4. The daily income of a vegetable vendor on five days was Rs. 73, Rs. 79, Rs. 81, Rs. 77, Rs. 75. What was his average daily income?
5. Write the following number as power of 10:  
Diameter of an atom of gold = 0.000000000003 cm

- Find the length of the hypotenuse of each triangle if the lengths of the sides forming a right angle are 18 and 24.
- If the perimeter of an equilateral triangle is 57 cm, find the length of its side.
- How much water will a tank of length 7.5 m, breadth 2.4 m and height 3 m hold?

**Q3. Solve the following:[Any five]**

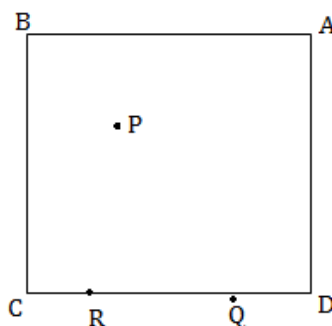
**[5 × 3 =15]**

- Construct  $\Delta VJN$ , where  $l(VJ) = l(JN) = l(VN) = 6.2$  cm.
- The length of a rectangular piece of land is 15 m and its width is 8 m. Find the length of its diagonal.
- In  $\Delta KLM$ ,  $l(KL) = 9$  cm,  $l(LM) = 12$  cm,  $l(KM) = 15$  cm. Is  $\Delta KLM$  a right-angled triangle? If it is, name the angle which measures  $90^\circ$ .
- The floor of a room of 6.6 m length and 4.5 m breadth is to be tiled. How many tiles will be required for this job, if each square tile to be used has a side of 30 cm.
- Damuseth bought a washing machine for Rs. 10,000. When he sold it to a customer, he incurred a loss of 12%. How much did he sell it for?
- Draw a triangle  $\Delta UVW$  in which  $m\angle V = 55^\circ$ ,  $m\angle W = 55^\circ$  and  $l(VW) = 7$  cm.
- A tank with a lid has length 2.5 m, breadth 2 m and height 2.4 m. How much of the metal sheet is required for the tank? What is the cost of constructing it at Rs. 10 per sq. m. How many cu. m of water can the tank hold?

**Q4.Solve the following:[Any three]**

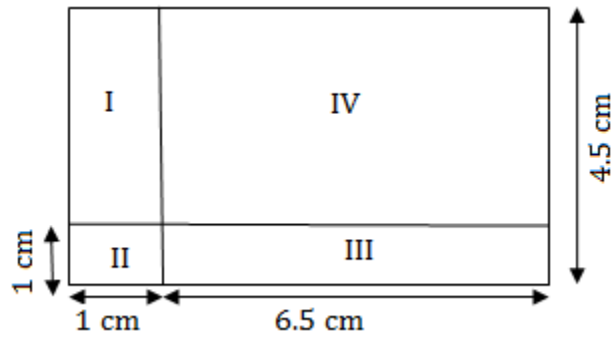
**[3 × 4 =12]**

- If 4 kg of jaggery costs Rs. 80, how much will 15 kg of jaggery cost?
- 10 litres of milk was shared between John and Saurabh. If Saurabh was given 2 litres of milk more than John, how many litres did each get?
- Look at the figure alongside and answer the following questions:



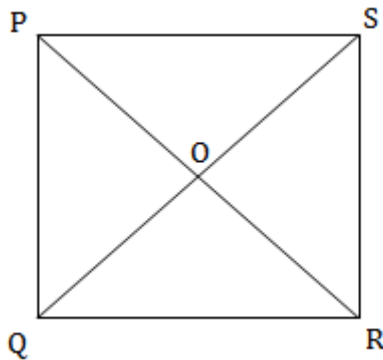
- Write the 3 letter name of all the four angles of the quadrilateral.
- In which part of the quadrilateral, is the point Q?
- Which are the sides adjacent to side AD?
- Which point is in the interior of the quadrilateral?

4. Look at the figure and answer the questions:



- What is the area of part I?
- What is the area of Part II?
- What is the area of part III?
- What is the area of part IV?

5. In  $\square PQRS$ , the length of the diagonal PR is 6 cm. Answer the questions given below the figure.

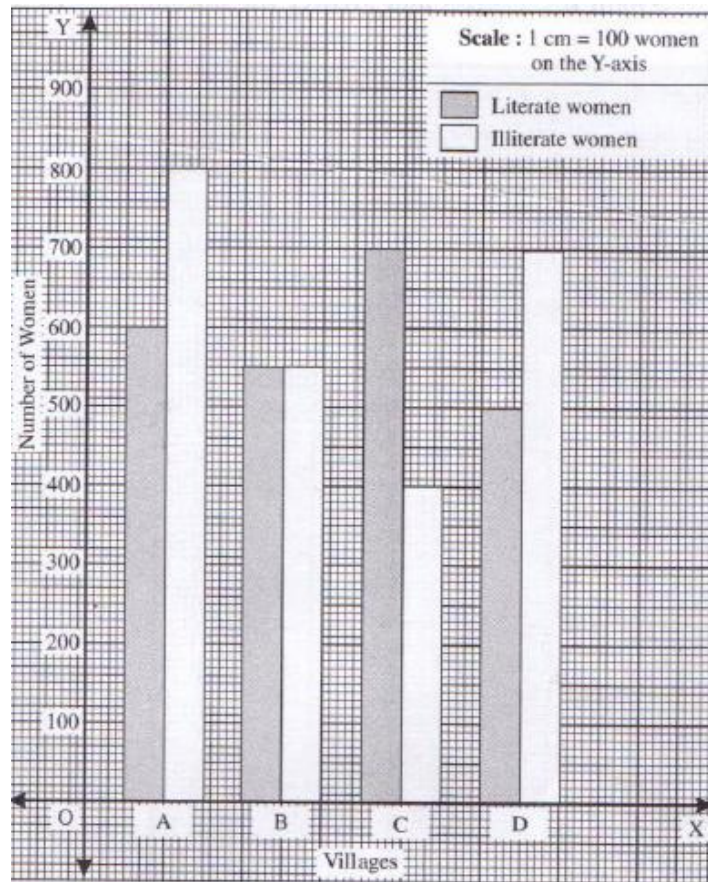


- What is the length of diagonal QS?
- Find  $l(QO)$
- Find  $l(PO)$
- Find  $m\angle POS$

**Q5.Solve the following:[Any one]**

**[1 × 5 = 5]**

1. The joint bar graph below gives the data amount about four villages, A, B, C and D regarding their numbers of literate and illiterate women:



- i. In which village is the number of literate women the highest?
  - ii. In which village is the number of literate and illiterate women the same?
  - iii. What is the number of illiterate women in village C?
  - iv. By how much does the number of illiterate women exceed the number of literate women in village D?
  - v. In which village is the number of literate women the least?
2. Answer the questions based on the figure:
- i. Write the names of the vertices.
  - ii. Write the names of the edges.
  - iii. Write the names of the faces.
  - iv. To which edges, is the vertex R common?
  - v. To which edges, is the vertex W common?

