# Model Test Paper-II

(Based on Chapters 10 to 16)

SECTION - A

1. Find the perimeter of an isosceles triangle that has its equal side 7.5 cm and third side 6.7 cm.
2. One of the angles of a triangle has measure 50° and the other two angles are equal. Find these angles.
3. Draw lines of symmetry of **8** .

[11 × 2 = 22]

4. Write the number of edges, faces and verticales of a cuboid.
5. When $\triangle ABC \cong \triangle POR$, write all congruent sides and angles.
6. Write the conditions for the construction of a triangle.
7. The area of a square-shaded park is 1024 m^2. What is its perimeter ?
8. Rahul Dravid scored the following runs in 5 different innings :

   125, 270, 0, 75, 37

   Find the average runs scored by him.
9. The diameter of a circular field is 154 m. How much distance an athlete will cover in 8 rounds?
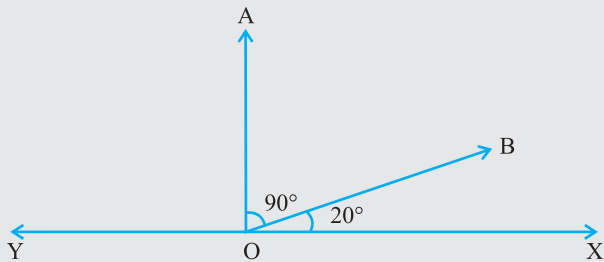10.
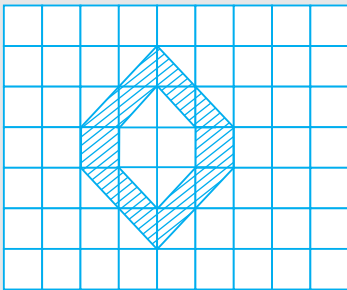
    Find the area of the shaded portion.
11. In the given figure if $\angle AOB = 90°$, find the $\angle AOY$.

SECTION - B

12. The angles of a triangle are $(x - 30°)$, $(2x + 15°)$ and $(\frac{x}{2} + 120°)$. Find the angles.

[10 × 3 = 30]

13. Two poles of height 7 m and 15 m stand upright in a playground. If their feet are 15 m apart, find the distance between their tops.
14. Show three alphabets of your choice with two lines of symmetry.
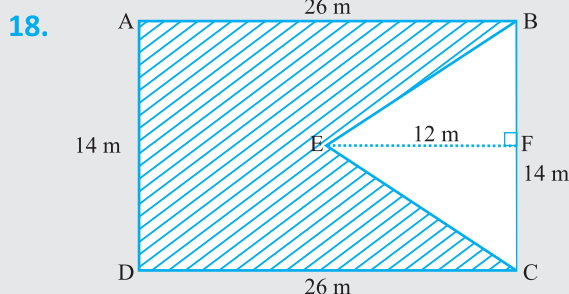15. Draw an accurate, full-size net of a cube of side 2 cm.

A Gateway to Mathematics-7

16. In the given figure, PQ = SR and PR = SQ. Prove that ∆PQR ≅ ∆SRQ.
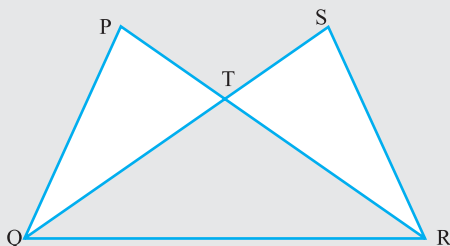
17. Construct a triangle ABC right-angled at B in which AB = 4.7 cm and BC = 3.9 cm.

18.

Find the area of shaded portion.

19. Five tourists were asked to guess the length of Qutab Minar. The observations were recorded as follows :

Persons	1	2	3	4	5
Lenghts (in m)	110	117	105	117	120

Find the mean, median and mode.

20. Pallav is expecting a guest next week. What is the probability of his arrival on :
   (a) Sunday   (b) Day tarting with alphabet 'T'   (c) Day starting with alphabets 'S'

21. The base and height of a triangle are in ratio 4 : 3 and its area is 726 m^2. Find its base and height.

SECTION - B

[7 × 4 = 28]

22. The side PQ of a ∆PQR is produced on both sides. Show that the sum of the exterior angles so formed is greater than ∠R by two right angles.

23. Rotate S through 90°, 180°, 270° and 360° about O. Find the angle of rotation when the image look alike to the original and hence find the rotational order.

24. A ladder of length 145 cm reaches a window which is 144 cm above the ground on one side of a street, at the same point it reaches a window of 143 cm high in a wall on opposite side. Find the width of the street.

25. Construct a triangle ABC in which BC = 4.2 cm, ∠B = 75° and C = ∠45°. Draw AD ⊥ BC and measure it.

26. In ∆PQR, PS is the bisector of ∠P such that PS ⊥ QR. Is ∆PQR an isosceles triangles ? Prove it.

27. A rectangular park is 64 m by 78 m. It has two roads each 3.5 m wide running in the middle of it, one parallel to its length and the other parallel to its breadth. Find the amount of putting marbles on it at rate of ₹127/m^2.

28. The data given below depicts the viewership of news channels of the residents of a locality :

News channel	Zee News	ABP News	India TV	NDTV India	DD News	Live India
No. of People	425	375	400	550	125	250

Draw a bar graph by choosing the appropriate scale.