

Class: 7
Subject: Mathematics
Topic: Practical geometry - Construction
No. of Questions: 25

Q1. Find the area of a Δ whose base is 6 cm and height 4 cm.

Sol: 12 cm^2 (Area = $6 \times 4 / 2 = 12 \text{ cm}^2$ (by formula)

Q2. Find the area and perimeter of an equilateral triangle whose each side is 5 cm.

Sol: $A = \frac{25}{4}\sqrt{3} \text{ cm}^2$; $P = 15 \text{ cm}$ (By formula)

Q3. Find the area of a rectangle whose length and breadth are 45 cm and 16 cm respectively also, find the perimeter of the rectangle.

Sol: $A = 720 \text{ cm}^2$; $P = 122 \text{ cm}$ (By formula)

Q4. Find the area and perimeter of a rectangle whose length and breadth are 15.4 cm and 6.5 cm respectively

Sol: $A = 100.10 \text{ cm}^2$; $P = 43.8 \text{ cm}$ (By formula)

Q5. Find the area of a rectangle which is 30 cm long and 25 cm broad.

Sol: $A = 750 \text{ cm}^2$ (By formula)

Q6. Find the area of a square whose each side is 2.5 cm also find the perimeter.

Sol: $A = 6.25 \text{ cm}^2$; $P = 10 \text{ cm}$ (By formula)

Q7. The area of a rectangle is 540 cm^2 . Its length is 27 cm. Find its width also its perimeter.

Sol: width = 20 cm; $p = 94 \text{ cm}$ (By formula)

Q8. The area of a rectangle is 650 cm^2 and one of its sides is 13 cm . Find the other side. Also find its perimeter.

Sol: $l = 50 \text{ cm}$; $p = 126 \text{ cm}$ (By formula)

Q9. Find the cost of fencing a rectangular field 34 m long and 18 m wide at 2.50 per meter. What is the cost of cultivating the field at $\text{Rs } 4.25$ per square meter?

Sol: fencing cost = $\text{Rs } 260.00$; cultivating cost = $\text{Rs } 2601$. (By formula definition)

Q10. A room is 9.68 m long and 6.2 m wide its floor is to be covered with rectangular tiles of size 22 cm by 10 cm . find the total cost of the tiles at the rate of $\text{Rs } 2.75$ per tile.

Sol: Total cost = $\text{Rs } 7502.00$ (By formula definition)

Q11. The total cost of flooring a room at $\text{Rs } 8.50$ per square meter is $\text{Rs } 510$. If the length of the room is 9 meters. Find its width.

Sol: 6.6 m (By formula)

Q12. A rectangular metal plate is 7 cm long and 5 cm broad. Find the cost of the plate at the rate of $\text{Rs } 75$ per square cm.

Sol: $\text{Rs } 2625.00$ (By formula)

Q13. The length and breadth of a playground are $62 \text{ m } 60 \text{ cm}$ and $25 \text{ m } 40 \text{ cm}$. find the cost of tiling it at $\text{Rs } 2.50$ per square meter. How long will a man take to go three times around the field, if he walks at the rate of 2 meter per second.

Sol: $\text{Rs } 3975.10$, $4 \text{ min } 24 \text{ sec}$ (By formula)

Q14. The length and breadth of a rectangular field are 360 m and 150 m respectively. Find its area in hectares as well as in Ares.

Sol: $A = 5.4 \text{ hectares} = 540 \text{ ares}$ (By formula)

Q15. The area of a rectangular field is 5 hectares and one of the sides of the field is 40 m. Find the other side.

Sol: 125 m (By formula)

Q16. How many envelopes can be made out of a sheet of paper 324 cm by 172 cm if each envelope requires a piece of paper of size 18 cm by 12 cm

Sol: 258 (By formula)

Q17. Two plots of land have the same perimeters. One is a square of side 64 m and another one is a rectangle of length 70m. Which plot has the greater area and by how much?

Sol: square plot, 36 m^2 (By formula)

Q18. A room is 13m long and 9 m broad. Find the area of carpeting the room with a carpet 75 cm broad at the rate of Rs 7.50 per meter.

Sol: Rs 1170.00 (By formula)

Q19. What happens to the area of a square if its side is doubled

Sol: 4 times (By formula)

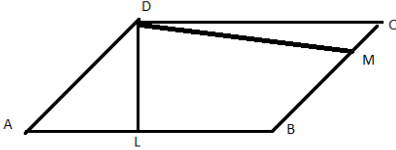
Q20. The area of a rectangular field is 24.03 Ares and its length is 54 meters. Find its breadth and perimeter.

Sol: width = 44.5 m, p = 197 m. (By formula)

Q21. Find the area of a parallelogram whose base = 8 cm and altitude = 5.6 cm

Sol: 44.8 cm^2 (By formula)

- Q22. In the adjoining figure, ABCD is a parallelogram $DL \perp AB$, $DM \perp BC$ of $AB = 18$ cm, $BC = 12$ cm and $DM = 6$ cm Find DL



Sol: 4 cm (By formula)

- Q23. A field is in the shape of parallelogram with base 260 cm and the corresponding height is 130 cm. find the cost of cultivating it at the rate of 75 paisa per area.

Sol: 2.53 p (By formula)

- Q24. Find the side of the parallelogram whose area is 392 square meters and the corresponding altitude is 24.5 meters.

Sol: 16 m (By formula)

- Q25. The area of a rhombus is 85 m^2 and its perimeter is 34 m. find its altitude.

Sol: 10 m (By formula)