

Class: VII
Subject: Math's
Topic: Perimeter and area
No. of Questions: 25

Q1. Find the area and perimeter of a Δ whose base is 6 cm each equal side is 5 cm and height 4 cm.

Sol: 12 cm^2 ; 16 cm

Exp. Area = $\frac{1}{2} \times (\text{base}) \times (\text{height}) = 6 \times 4 / 2 = 12 \text{ cm}^2$; Perimeter = Sum of sides = $6 + 5 + 5 = 16 \text{ cm}$

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

Sol: $A = \frac{25}{4} \sqrt{3} \text{ cm}^2$; $p = 15 \text{ cm}$

Exp. Using formula

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

Sol: $A = 720 \text{ cm}^2$; $p = 122 \text{ cm}$

Exp. Using formula

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

Sol: $A = 100.10 \text{ cm}^2$; $p = 43.8 \text{ cm}$

Exp. Using formula

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

Sol: $A = 750 \text{ cm}^2$

Exp. Using formula

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

Sol: $A = 6.25 \text{ cm}^2$; $p = 10 \text{ cm}$

Exp. Using formula

Q7. The area of a rectangle is 540 cm^2 . If its length is 27 cm then find its width and also its perimeter.

Sol: width = 20 cm ; $p = 94 \text{ cm}$

Exp. Using 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: $L = 50 \text{ cm}$; $p = 126 \text{ cm}$

Exp. Using formula; Let other side be 'x'

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 Rs 4.25 per square meter?

Sol: Fencing cost = 260.00 cultivating cost = Rs 2601.00

Exp. Using formula to calculate the area ; Cost = area * rate

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 Rs. 2.75 per tile.

Sol: Total cost = Rs 7502.00

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

Sol: 7.5 m

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

Sol: Rs 2625.00

Q13. The length and breadth of a playground are 62 m 60 cm and 25 m 40 cm. Find the cost of turfing it at Rs 2.50 per square meter. How long will a man take to go three times round the field, if he walks at the rate of 2 meter per second.

Sol: Rs 3975.10, 4 min, 24 sec

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 hectare = 540 Ares (1 Hectare = 100 Ares)

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

Sol: 125 m

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

Exp. Using formula to calculate both areas. Divide larger area with smaller area to get the number of envelopes.

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

Sol: Square plot, 36 m²

Exp. Using formula calculate area and compare.

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

Sol: Rs 1170 .00

Exp. Using formula calculate area ; Cost = area * rate

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

Sol: 4 times

Exp. Mathematical Fact

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.

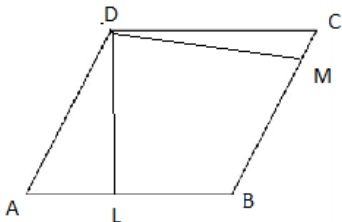
Exp. Using formula

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

Sol: 44.8 cm^2

Exp. Using formula

Q22. In the adjoining figure, ABCD is parallelogram $DL \perp AB$, $DM \perp BC$. If $AB = 18 \text{ cm}$, $BC = 12 \text{ cm}$ and $DM = 6 \text{ cm}$. find DL



Sol: 4 cm

Exp. Using formula of area; substitute it for the other side and take perpendicular length as DL.

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: Rs. 253

Exp. Using formula calculate the area ; Cost = Area * Rate

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

Sol: 16 m

Exp. Using formula

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

Sol: 10 m

Exp. Using formula ; Let Altitude be 'x'

askITians