

- 1) The area of a triangle with base 4 cm and height 6 cm is 24 cm^2 .
- 2) The area of ΔABC is 8 cm^2 in which $AB = AC = 4 \text{ cm}$ and $\angle A = 90^\circ$.
- 3) The area of the isosceles triangle is $\frac{5}{4}\sqrt{11} \text{ cm}^2$, if the perimeter is 11 cm and the base is 5 cm.
- 4) The area of the equilateral triangle is $20\sqrt{3} \text{ cm}^2$ whose each side is 8 cm.
- 5) If the side of a rhombus is 10 cm and one diagonal is 16 cm, the area of the rhombus is 96 cm^2 .
- 6) The base and the corresponding altitude of a parallelogram are 10 cm and 3.5 cm, respectively. The area of the parallelogram is 30 cm^2 .
- 7) The area of a regular hexagon of side 'a' is the sum of the areas of the five equilateral triangles with side a.
- 8) The cost of levelling the ground in the form of a triangle having the sides 51 m, 37 m and 20 m at the rate of Rs 3 per m^2 is Rs 918.
- 9) In a triangle, the sides are given as 11 cm, 12 cm and 13 cm. The length of the altitude is 10.25 cm corresponding to the side having length 12 cm.
- 10) Find the cost of laying grass in a triangular field of sides 50 m, 65 m and 65 m at the rate of Rs 7 per m^2 .
- 11) The triangular side walls of a flyover have been used for advertisements. The sides of the walls are 13 m, 14 m and 15 m. The advertisements yield an earning of Rs 2000 per m^2 a year. A company hired one of its walls for 6 months. How much rent did it pay?
- 12) From a point in the interior of an equilateral triangle, perpendiculars are drawn on the three sides. The lengths of the perpendiculars are 14 cm, 10 cm and 6 cm. Find the area of the triangle.
- 13) The perimeter of an isosceles triangle is 32 cm. The ratio of the equal side to its base is 3 : 2. Find the area of the triangle.
- 14) Find the area of a parallelogram given in Fig. 12.2. Also find the length of the altitude from vertex A on the side DC.
- 15) A field in the form of a parallelogram has sides 60 m and 40 m and one of its diagonals is 80 m long. Find the area of the parallelogram.
- 16) The perimeter of a triangular field is 420 m and its sides are in the ratio 6 : 7 : 8. Find the area of the triangular field.
- 17) The sides of a quadrilateral ABCD are 6 cm, 8 cm, 12 cm and 14 cm (taken in order) respectively, and the angle between the first two sides is a right angle. Find its area.
- 18) A rhombus shaped sheet with perimeter 40 cm and one diagonal 12 cm, is painted on both sides at the rate of Rs 5 per m^2 . Find the cost of painting. Find the area of the trapezium PQRS with height PQ given in Fig. 12.3

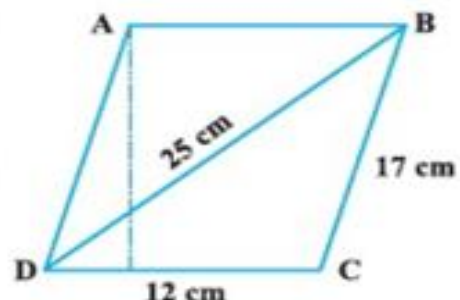


Fig. 12.2

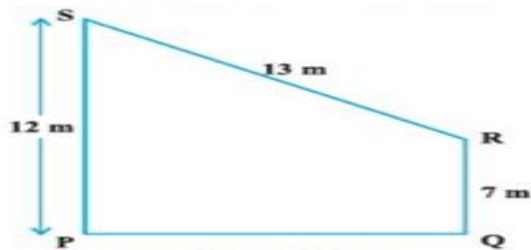


Fig. 12.3

- 19) How much paper of each shade is needed to make a kite given in Fig. 12.4, in which ABCD is a square with diagonal 44 cm.

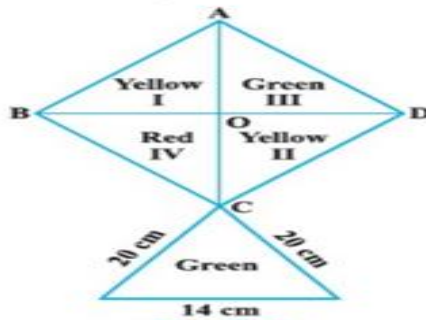


Fig. 12.4

- 20) The perimeter of a triangle is 50 cm. One side of a triangle is 4 cm longer than the smaller side and the third side is 6 cm less than twice the smaller side. Find the area of the triangle.
- 21) The area of a trapezium is 475 cm^2 and the height is 19 cm. Find the lengths of its two parallel sides if one side is 4 cm greater than the other.
- 22) A rectangular plot is given for constructing a house, having a measurement of 40 m long and 15 m in the front. According to the laws, a minimum of 3 m, wide space should be left in the front and back each and 2 m wide space on each of other sides. Find the largest area where house can be constructed.
- 23) A field is in the shape of a trapezium having parallel sides 90 m and 30 m. These sides meet the third side at right angles. The length of the fourth side is 100 m. If it costs Rs 4 to plough 1 m^2 of the field, find the total cost of ploughing the field.

- 24) In Fig. 12.5, $\triangle ABC$ has sides $AB = 7.5 \text{ cm}$, $AC = 6.5 \text{ cm}$ and $BC = 7 \text{ cm}$. On base BC a parallelogram DBCE of same area as that of $\triangle ABC$ is constructed. Find the height DF of the parallelogram.
- 25) The dimensions of a rectangle ABCD are $51 \text{ cm} \times 25 \text{ cm}$. A trapezium PQCD with its parallel

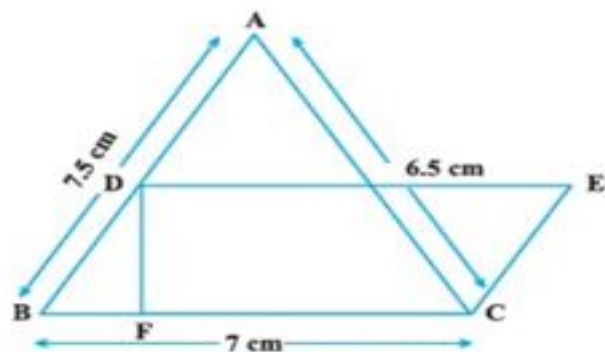


Fig. 12.5

sides QC and PD in the ratio 9 : 8, is cut off from the rectangle as shown in the

Fig. 12.6. If the area of the trapezium PQCD is $\frac{5}{6}$ th part of the area of the rectangle, find the lengths QC and PD.

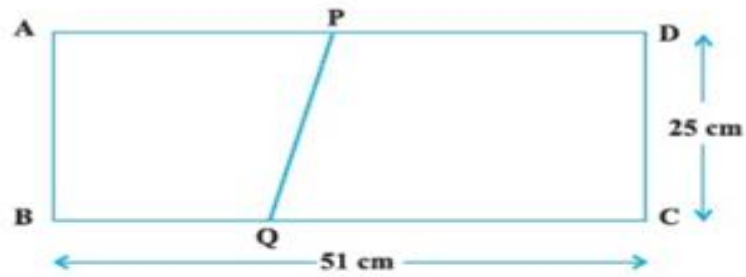


Fig. 12.6

- 26) A design is made on a rectangular tile of dimensions $50\text{ cm} \times 70\text{ cm}$ as shown in Fig. 12.7. The design shows 8 triangles, each of sides 26 cm , 17 cm and 25 cm . Find the total area of the design and the remaining area of the tile.

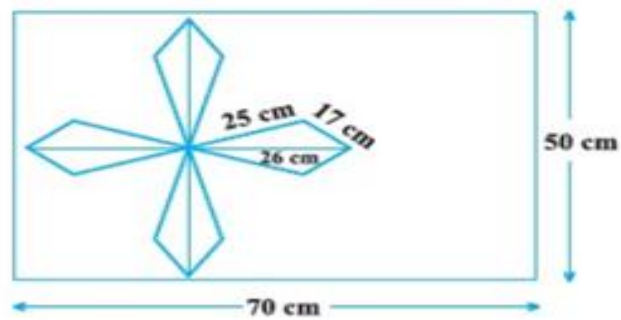


Fig. 12.7