ASSIGNMENT

 CHAPTER: 12 HERON’S FORMULA

1. Prove that area of an equilateral triangle with side ‘a’ units is $\frac{\sqrt{3}}{4}a^{2}$
2. Find the perimeter of an equilateral triangle whose area is $4\sqrt{3}$ $cm^{2}$.(Ans:12 cm)
3. The sides of a triangle are in the ratio 13:14:15 and its perimeter is 84 cm .Find the area of the triangle. (Ans: 336 $cm^{2}$).
4. The sides of a triangle are given as 11cm ,12cm and 13cm.Find the length of the altitude to the side 12cm. (Ans: 10.25 cm )
5. Find the area of a quadrilateral ABCD in which AB=3cm ,BC= 4cm, CD =6 cm, AD= 5 cm and diagonal AC =5cm. (Ans:18 cm )
6. The lengths of two adjacent sides of a parallelogram are respectively 51 cm and 37 cm. One of its diagonal is 20 cm. Find the area of the parallelogram. (Ans:612 $cm^{2}$ )
7. The perimeter of a rhombus is 400m.Find its area if the length of one of its diagonal is 160m .Also find the length of other diagonal. (Ans:9600$m^{2}$ ,120m)
8. A park is in the shape of quadrilateral ABCD has $<$C =$90^{0}$ ,AB =18 cm, BC= 24cm, CD= 10m ,and AD =16 m .How much area does it occupy? (Ans: $262 m^{2 }$)
9. A triangle and a parallelogram have the same base and same area.If the sides of the triangle are 40cm, 24cm, and 32 cm and parallelogram stands on the base 40cm . Find the height of the parallelogram. (Ans: 9.6 cm)
10. Two triangular walls of fly over has been used for advertisement. The sides of each wall are 100m ,80m , and 40m. The advertisement yield an earning of Rs 1200per $m^{2}$ per year. Find the amount of revenue earned in one year. (Take $\sqrt{231}$ =15.2 ) (Ans:Rs36,48,000 )
11. Find the area of a trapezium whose parallel sides are 25 cm and 13 cm, the other sides are 15 cm and 15 cm.( Ans:57$\sqrt{21}$ $cm^{2}$ )
12. Calculate the area of the shaded portion: (Ans: 384 $cm^{2}$ )

 52cm

 12cm

 16cm

 48cm