Class 9 Chapter _Heron's formula

1. The area of a parallelogram is $392m^2$. If its altitude is twice the corresponding base, determine the base and height.

2. A rectangular lawn, 75m by 60m, has two roads, each 4m wide, running through the middle of the lawn, one parallel to length and other parallel to breadth. Find the cost of gravelling the roads at Rs 5.50 per m^2

3. The adjacent sides of a parallelogram are 36cm and 27cm in length .If the distance between the shorter sides is 12cm, find the distance between the longer sides.

4. Using Heron's formula, find the area of an equilateral triangle if its side is 'a 'units.

5. Find the percentage increase in the area of a triangle if its each side is doubled.

6. Find the area of quadrilateral ABCD whose sides in meters are 9, 40, 28 and 15 respectively and the angle between first two sides is a right angle.

7. The difference between the sides containing a right angle in a right angled triangle is 14cm. The area of a triangle is $120cm^2$.Calculate the perimeter of a triangle.

8. Find the area of trapezium in which parallel sides are of lengths 5 cm and 11 cm whereas non-parallel sides are of lengths 4 cm and 6 cm.

9. The sides of a triangular plot are in the ratio of 3 : 5 : 7 and its perimeter is 900 m. Find its area.

10. An isosceles triangle has perimeter 44 cm and each of the equal sides is 14cm. Find the area of the triangle.

11. The perimeter of a rhombus is 240cm and one of its diagonals is 80cm. Find its area using Heron.s formula.

12. Find area of equilateral triangle of side 4a using Heron.s formula. Using this formula find area of an equilateral triangle whose perimeter is 540cm.

13. The sides of a quadrilateral are 5cm, 12cm, 15cm and 20cm. The angle between first two sides is 90° Find the area of quadrilateral.

14. One side of a right triangle is 8 cm and the difference between other two sides is 4 cm. Find its area by Heron.s formula.

15. The perimeter of a right triangle is 12 cm and its hypotenuse is 5 cm. Find its area ($6cm^2$)

16. A quadrilateral park ABCD has < C = 90^0, AB = 13 m, BC = 12 m, CD = 9 m and AD = 14 m. Find its area.

17. The shape of cross-section of a canal is a trapezium. If the canal is 10 m wide at the top and 6 m wide at the bottom and the area of the cross-section is 72 m^2, find its depth.

18. If two diagonals of a rhombus are of lengths 90 m and 400 m, then find the height and perimeter of the rhombus.