INDIAN SCHOOL MUSCAT
SENIOR SECTION
DEPARTMENT OF MATHEMATICS
CLASS IX
WORKSHEET NO.6
HERON'S FORMULA

SECTION A: (1 MARK)

1. The perimeter of an equilateral triangle is 60 m. What will be its area? ($100\sqrt{3}\ m^2$)

2. Calculate the side of an isosceles right triangle of hypotenuse $5\sqrt{2}$ cm. (5 cm)

SECTION B: (2 MARKS)

3. If the area of an equilateral triangle is $81\sqrt{3}\ cm^2$. Find its perimeter. (54 cm)

4. The semi perimeter of a triangle is 132 cm and the product of the differences of semi perimeter and its respective sides (in cm) is 13200. Find the area of triangle. (CBSE 2016) ($1320 cm^2$)

SECTION C: (3 MARKS)

5. Find the area of a triangular field of sides 18m, 24m and 30m. Also find the altitude corresponding to the shortest sides. (CBSE 2016) ($216 m^2$, 26m)

6. The sides of a triangle are x, x + 1, 2x – 1 and its area is $x\sqrt{10}$. What is the value of x? (x = 6)

7. Find the area of an isosceles triangle whose one side is 10cm greater than its equal sides and its perimeter is 100cm (Take $\sqrt{5} = 2.23$) (CBSE 2012) ($446\ cm^2$)

8. The adjacent sides of a parallelogram are 34 cm, 20 cm and a diagonal is 42 cm. Find the area of the parallelogram. (CBSE 2012) ($672\ cm^2$)

9. The sides of a triangular field are 51 m, 37 m and 20 m. Find the number of rose beds that can be prepared in the field if each rose bed occupies a space of 6 sq.m. (51)

10. The area of a rhombus is $96 cm^2$. If one of its diagonals is 16cm, then find the length of its sides (10 cm)

SECTION D: (4 MARKS)

11. From a point in the interior of an equilateral triangle, perpendiculars are drawn to the three sides. The length of the perpendiculars are 14 cm, 10 cm and 6 cm. Find the area of the triangle. (NCERT Exemplar)($300\sqrt{3}\ cm^2$)

12. If each side of any triangle is doubled then find the percentage of increase in its area (300%)