

Mathematics Assignment (Class-IX)

Chapter- 12 Herons Formula

	1 MARKER QUESTIONS
1	Area of an isosceles right triangle is 8cm^2 . Its hypotenuse is – a) $\sqrt{32}\text{ cm}$ b) 4cm c) $4\sqrt{3}\text{ cm}$ d) $2\sqrt{6}\text{ cm}$
2	The area of an equilateral triangle is $16\sqrt{3}\text{ m}^2$. Its perimeter (in metres) is – a) 12 b) 48 c) 24 d) 306
3	The sides of a triangular plot are in the ratio 4:5:6 and its perimeter is 150cm. Then the sides are – a) 120cm,150cm,180cm b) 40cm,50cm,60cm c) 8cm,10cm,12cm d) 4cm,5cm,6cm
4	Find the area of a triangle whose sides are 13cm, 14cm and 15cm.
5	If the perimeter and base of an isosceles triangle are 11 cm and 5 cm respectively. Find its area.
6	If each side of a triangle is doubled, then find the ratio of area of the new triangle thus formed and the given triangle.
	2 MARKER QUESTIONS
7	Find the area of a triangle whose sides are respectively 150cm, 120cm and 200cm.
8	Find the area of a triangle whose perimeter is 168cm and two of its sides are 56cm and 60cm.
9	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.
10	The base of an isosceles triangle measures 24cm and its area 192cm^2 . Find its perimeter.
11	The perimeter of an equilateral triangle is equal to the perimeter of a square. The diagonal of the square is $9\sqrt{2}\text{ cm}$. Find the area of equilateral triangle.
12	Find the area of an isosceles triangle each of whose equal sides measures 13cm and base measures 20cm.
	3 MARKER QUESTIONS
13	The perimeter of a triangular field is 540m and its sides are in the ratio 25 : 17 : 12. Find the area of the triangle. Also, find the cost of ploughing the field at Rs. 18.80 per 10 m^2 .
14	A triangle and a parallelogram have the same base and the same area. If the sides of the triangle are 13cm, 14cm and 15cm and the parallelogram stands on the base 14cm, find the height of the parallelogram.
15	The sides of a quadrilateral, taken in order are 5, 12, 14 and 15 meters respectively, and the angle contained by the first two sides is a right angle. Find its area.

16	Calculate the area of the triangle whose sides are 18cm, 24cm and 30cm in length. Also find the length of the altitude corresponding to the smallest side of the triangle.
17	A rhombus sheet, whose perimeter is 32m and whose one diagonal is 10m long, is painted on both sides at the rate of Rs. 5 per m ² . Find the cost of painting.
18	The perimeter of an isosceles triangle is 42cm and its base is half times each of equal sides. Find – (i) length of each side of the triangle (ii) the area of the triangle (iii) height of the triangle.
	4 MARKER QUESTIONS
19	Two sides of a triangular field are 85m and 154m in length and perimeter is 324m. Find (i) the area of the field. (ii) the length of the perpendicular from the opposite vertex on the side measuring 154m.
20	Two parallel sides of a trapezium are 60cm and 77cm other sides are 25cm and 26cm. find the area of the trapezium.
	HOTS
21	Find the area of an isosceles triangle whose base is 'a' and the two equal sides are of length 'b' each.
22	If each side of a triangle is doubles, then find percentage increase in its area.