

REVISION TEST 05 (Coordinate Geometry & Heron's Formula)
CLASS: IX : MATHEMATICS

M.M. 30 Marks

T.T. 1 hr

SECTION – A(1 marks each)

1. Write the coordinates of the point lying on x-axis and with x-coordinate 4
2. The height of an equilateral triangle is 6 cm, then find the area of the triangle
3. Find the length of each side of an equilateral triangle having an area of $9\sqrt{3} \text{ cm}^2$

SECTION – B(2 marks each)

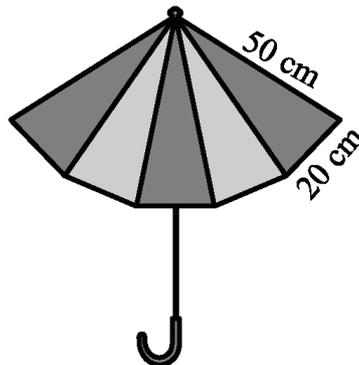
4. In which quadrant or on which axis do each of the points $(-2, 4)$, $(3, -1)$, $(1, 2)$ and $(-3, -5)$ lie?
5. Find the area of a triangle, two sides of which are 8 cm and 11 cm and the perimeter is 32 cm.
6. The base of an isosceles triangle is 10 cm and one of its equal sides is 13 cm. Find its area.

SECTION – C(3 marks each)

7. Plot the following points and write the name of the figure thus obtained : $P(-3, 2)$, $Q(-7, -3)$, $R(6, -3)$, $S(2, 2)$
8. Plot the points (x, y) given in the following table on the plane, choosing suitable units of distance on the axes.

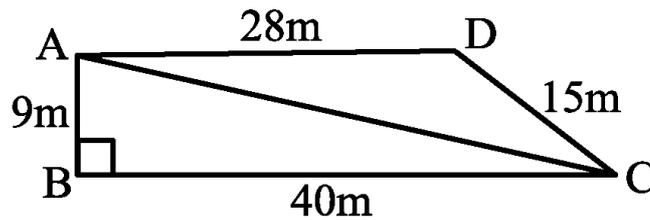
x	-1	2	-4	2	-3
y	0	-5	2	1	2

9. An umbrella is made by stitching 10 triangular pieces of cloth of two different colours each piece measuring 20 cm, 50 cm and 50 cm. How much cloth of each colour is required for the umbrella?



SECTION – D(4 marks each)

10. Prove that “The ratio of the areas of two similar triangles is equal to the square of the ratio of their corresponding sides.”
11. Students of a school staged a rally for cleanliness campaign. They walked through the lanes in two groups. One group walked through the lanes AB, BC and CA; while the other through AC, CD and DA. Then they cleaned the area enclosed within their lanes. If $AB = 9\text{ m}$, $BC = 40\text{ m}$, $CD = 15\text{ m}$, $DA = 28\text{ m}$ and $\angle B = 90^\circ$, which group cleaned more area and by how much? Find the total area cleaned by the students (neglecting the width of the lanes). Which value is depicted from these?



12. Three vertices of a rectangle are $(3, 2)$, $(-4, 2)$ and $(-4, 5)$. Plot these points and find the coordinates of the fourth vertex.
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