Area of Triangles using Heron's Formula

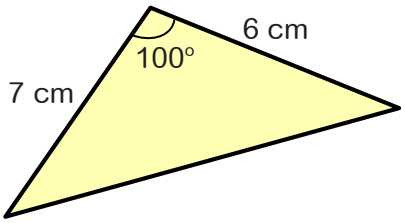
Give answers to 3 significant figures.

NOT TO SCALE

Section A

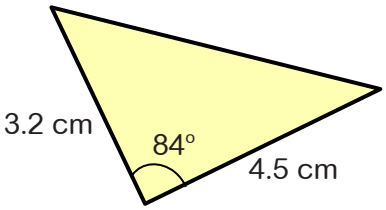
Questions 1 - 5 find the area of the triangles.
Question 6 find the missing side x.

1)



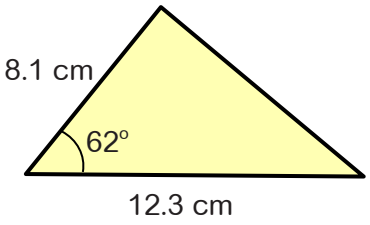
Area = _____

2)



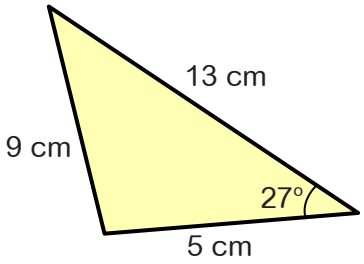
Area = _____

3)



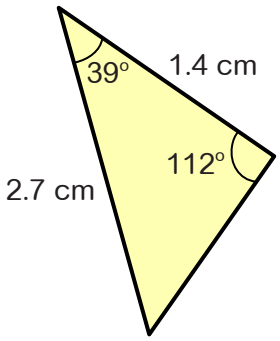
Area = _____

4)



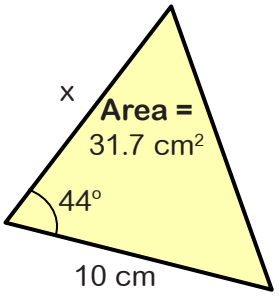
Area = _____

5)



Area = _____

6)

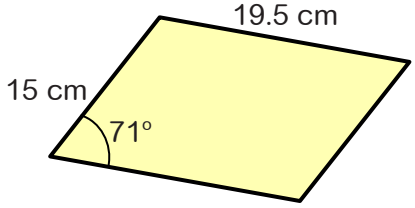


x = _____

Section B

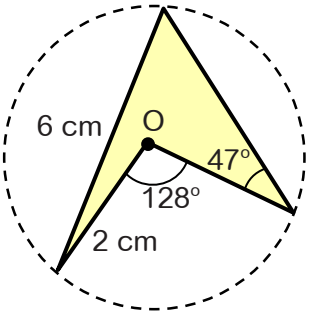
Calculate the area of the parallelogram, arrow-head and irregular quadrilateral.

1)



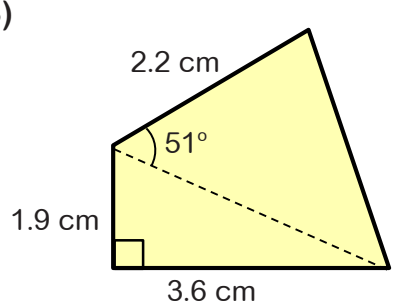
Area = _____

2)



Area = _____

3)



Area = _____

Area of Triangles using Heron's Formula

Section C

1) A regular hexagon has sides lengths 10 cm.
Calculate the area of the hexagon.

2) The area of triangle ABC is 19.6 cm^2.
AB = 5.9 cm, AC = 8.7 cm.
Calculate the two possible sizes of angle A.

Extension

The points X, Y and Z are are on the circumference of a circle, with center O and radius 5 cm.
XY = 7 cm and YZ = 4.5 cm.
Calculate the area of quadrilateral OXYZ.