

Data	To find	Formula
1 side, 2 angles	side	Sine rule
2 sides, angle	angle	Sine rule
2 sides, angle	side	Cosine rule
3 sides	angle	Cosine rule





























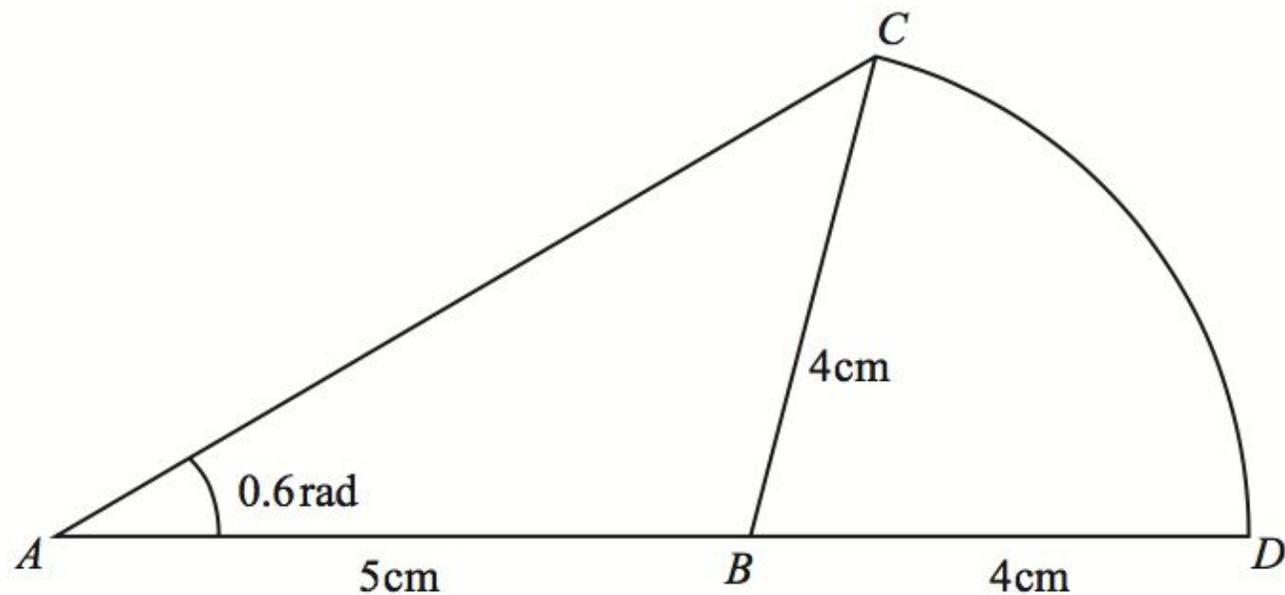


Figure 1

An emblem, as shown in Figure 1, consists of a triangle ABC joined to a sector CBD of a circle with radius 4 cm and centre B . The points A , B and D lie on a straight line with $AB = 5$ cm and $BD = 4$ cm. Angle $BAC = 0.6$ radians and AC is the longest side of the triangle ABC .

(a) Show that angle $ABC = 1.76$ radians, correct to 3 significant figures.

(4)

(b) Find the area of the emblem.

(3)