QQQ - PureYr1 - Chapter 9 – Trigonometric Ratios (v3)

Total Marks: 16

(16 = Platinum, 14 = Gold, 12 = Silver, 10 = Bronze)

---

1. A triangular lawn is modelled by the triangle ABC , shown in Figure 1. The length AB is to be 30 m long. Given that angle $BAC = 70^\circ$ and angle $ABC = 60^\circ$, calculate the area of the lawn to 3 significant figures.

(4)

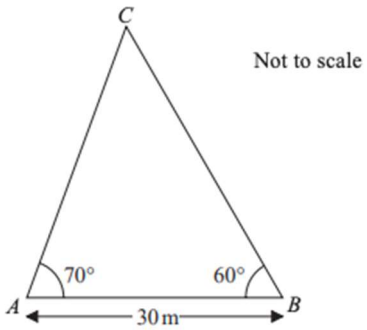
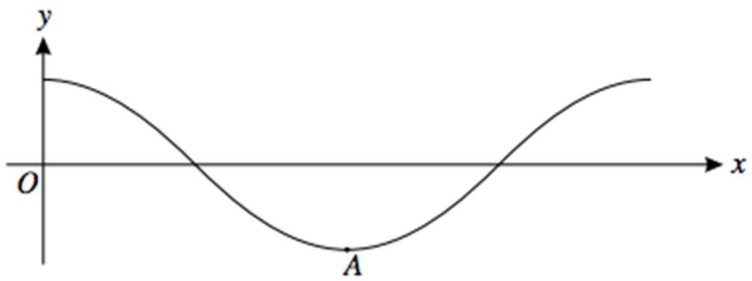


Figure 1

2.



The diagram shows part of the curve $y = cos\ 2x$, where x is in degrees. The point A is the minimum point of this part of the curve.

State the coordinates of A. **(2)**

3. In the triangle ABC , AB = 11 cm, BC = 7 cm and CA = 8 cm. Find the area of triangle ABC , giving your answer in cm2 to 3 significant figures. **(3)**

4. In the triangle ABC , AB = 16 cm, AC = 13 cm, angle ABC = 50° and angle BCA = x °

(a) Find the size of angle C , giving your answer in degrees to 3 significant figures. **(3)**

(b) Find the two possible values for x , giving your answers to one decimal place. **(4)**