**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 $BAC=70^{°}$  and angle $ABC=60^{°}$ , calculate the area of the lawn to 3 significant figures. **(4)**

**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)**

**Solutions (all questions © Edexcel)**

1.



**2.**

 $(90, -1)$ B1 B1

