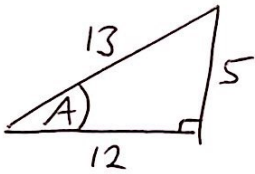


# REVISION C SOLUTIONS

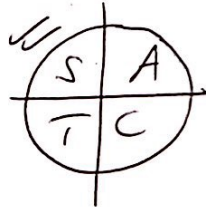
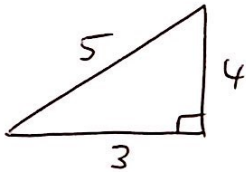
①



$$\cos A = \frac{12}{13}$$

$$\sin A = \frac{5}{13}$$

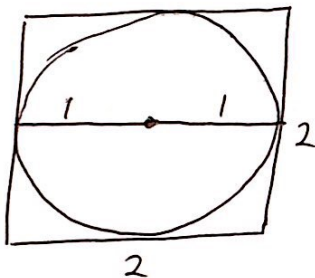
②



$$\sin A = \frac{4}{5}$$

$$\tan A = -\frac{4}{3}$$

③



$$\text{Area circle} = \pi r^2 = \pi$$

$$\therefore r = 1$$

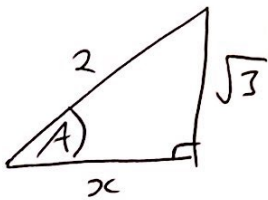
$$\therefore \text{Side square} = 2$$

$$\therefore \text{Area square} = 2(2) = \boxed{4 \text{ units}^2}$$

④  $\text{Area} = \frac{1}{2} ab \sin C$

$$14\sqrt{3} = \frac{1}{2} (7)(8) \sin A$$

$$\frac{\sqrt{3}}{2} = \sin A$$



$$2^2 = \sqrt{3}^2 + x^2$$

$$4 - 3 = x^2$$

$$1 = x$$

$$\therefore \cos A = \boxed{\frac{1}{2}}$$

$$\textcircled{5} \quad (i) \quad \text{Area} = \frac{1}{2} r^2 \theta$$

$$240 = \frac{1}{2} (20)^2 \theta$$

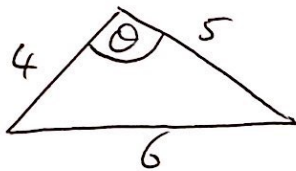
$$\frac{240}{200} = \boxed{\theta = 1.2 \text{ rads}}$$

$$(ii) \quad l = r \theta$$

$$= 20(1.2)$$

$$= \boxed{24 \text{ units}}$$

$\textcircled{6}$



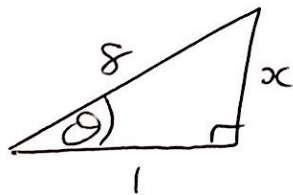
$$(i) \quad 6^2 = 4^2 + 5^2 - 2(4)(5) \cos \theta$$

$$36 = 16 + 25 - 40 \cos \theta$$

$$40 \cos \theta = 5$$

$$\boxed{\cos \theta = \frac{1}{8}}$$

(ii)



$$x^2 = 8^2 - 1^2$$

$$x^2 = 63$$

$$x = \sqrt{63} = 3\sqrt{7}$$

$$\therefore \sin \theta = \boxed{\frac{3\sqrt{7}}{8}}$$