

SAMPLE PAPER 2: PAPER 2

QUESTION 3 (25 MARKS)

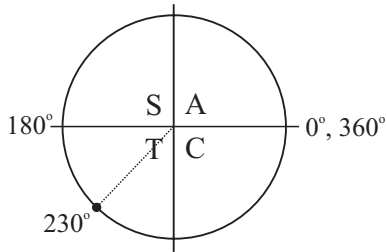
Question 3 (a)

$$\sin 50^\circ = 0.766$$

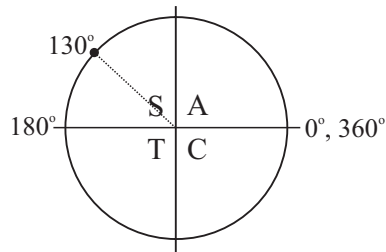
$$\cos 50^\circ = 0.643$$

$$\tan 50^\circ = 1.192$$

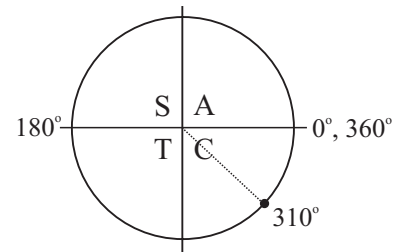
Question 3 (b)



$$\begin{aligned} \sin 230^\circ &= \sin(180^\circ + 50^\circ) \\ &= -\sin 50^\circ \\ &= -0.766 \end{aligned}$$



$$\begin{aligned} \cos 130^\circ &= \cos(180^\circ - 50^\circ) \\ &= -\cos 50^\circ \\ &= -0.643 \end{aligned}$$



$$\begin{aligned} \tan 310^\circ &= \tan(360^\circ - 50^\circ) \\ &= -\tan 50^\circ \\ &= -1.192 \end{aligned}$$

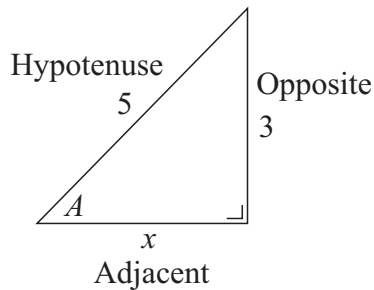
Question 3 (c) (i)

$$\sin A = \frac{3}{5} = \frac{\text{Opposite}}{\text{Hypotenuse}}$$

$$x^2 + 3^2 = 5^2$$

$$x^2 = 25 - 9 = 16$$

$$x = \sqrt{16} = 4$$



$$\cos A = \frac{\text{Adjacent}}{\text{Hypotenuse}} = \frac{4}{5}$$

$$\tan A = \frac{\text{Opposite}}{\text{Adjacent}} = \frac{3}{4}$$

Question 3 (c) (ii)

$$\cos(180^\circ + A) = -\cos A = -\frac{4}{5}$$

$$\tan(180^\circ + A) = +\tan A = \frac{3}{4}$$