

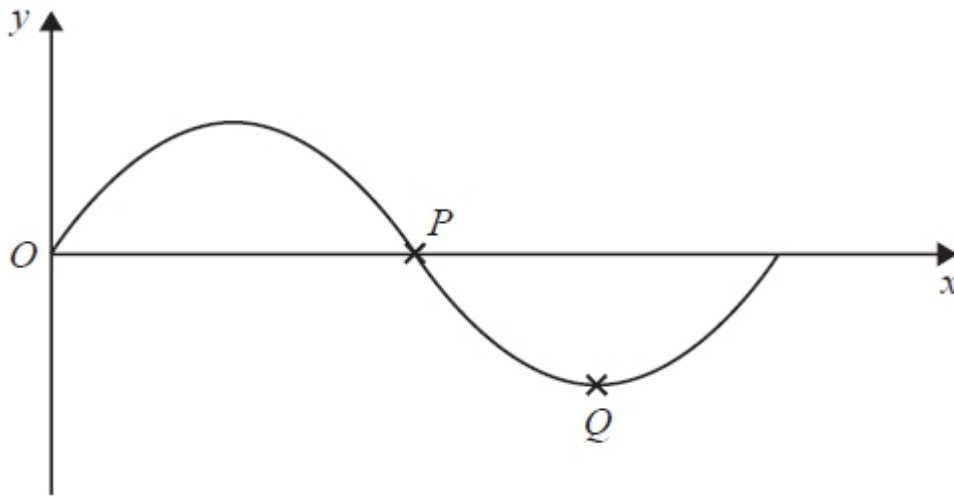
# Sketching trigonometric graphs

**A LEVEL LINKS**

Scheme of work: 4a. Trigonometric ratios and graphs

## Practice question

- 1 The diagram shows part of a sketch of the curve  $y = \sin x^\circ$



- (a) Write down the coordinates of

(i) the point  $P$

( ..... , ..... )

(ii) the point  $Q$

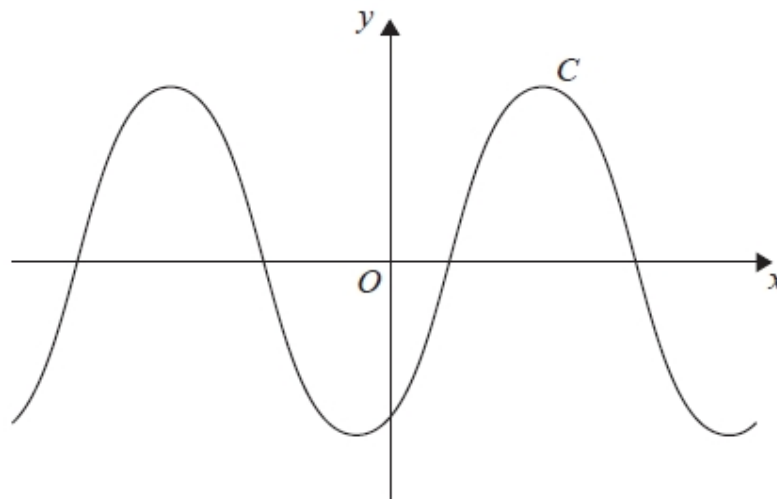
( ..... , ..... )

- (b) Sketch the graph of  $y = \tan x$  for  $0^\circ \leq x \leq 360^\circ$

Show the coordinates of any points of intersection with the coordinate axes.



2



**Figure 4**

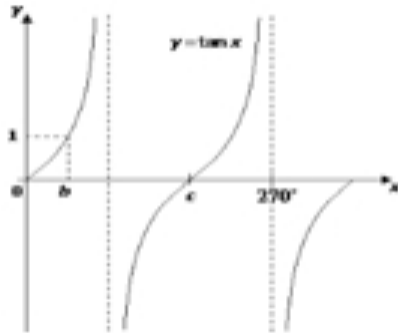
Figure 4 shows a sketch of the curve  $C$  with equation  $y = \sin(x - 60^\circ)$ ,  $-360^\circ \leq x \leq 360^\circ$   
Write down the exact coordinates of the points at which  $C$  meets the two coordinate axes.

- 3 Sketch the graph of  $y = 1 + \cos x$ ,  $0 \leq x \leq 2\pi$   
Show on your sketch the coordinates of the points where your graph meets the coordinate axes.



## Answer

- 1 (a)(i)  $(180, 0)$   
 (ii)  $(270, -1)$   
 (b)



- 2  $\left(0, -\frac{\sqrt{3}}{2}\right)$   
 and  $(60^\circ, 0)$  and  $(240^\circ, 0)$  and  $(-120^\circ, 0)$  and  $(-300^\circ, 0)$

