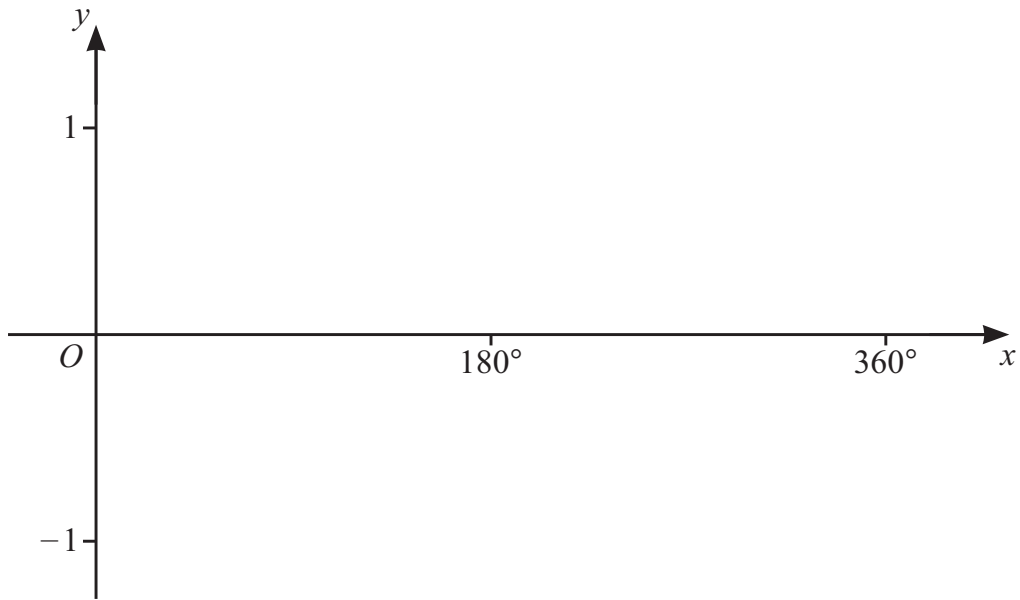


21 (a)



On the diagram, sketch the graph of  $y = \cos x$  for  $0^\circ \leq x \leq 360^\circ$ . [2]

(b) Solve the equation  $2 \cos x + \sqrt{3} = 0$  for  $0^\circ \leq x \leq 360^\circ$ .

$x = \dots\dots\dots$  or  $x = \dots\dots\dots$  [3]

22 A graph with equation  $y = x^2 + bx + c$  has a minimum point at  $(-5, 12)$ .

Find the value of  $b$  and the value of  $c$ .

$b = \dots\dots\dots$

$c = \dots\dots\dots$

[3]