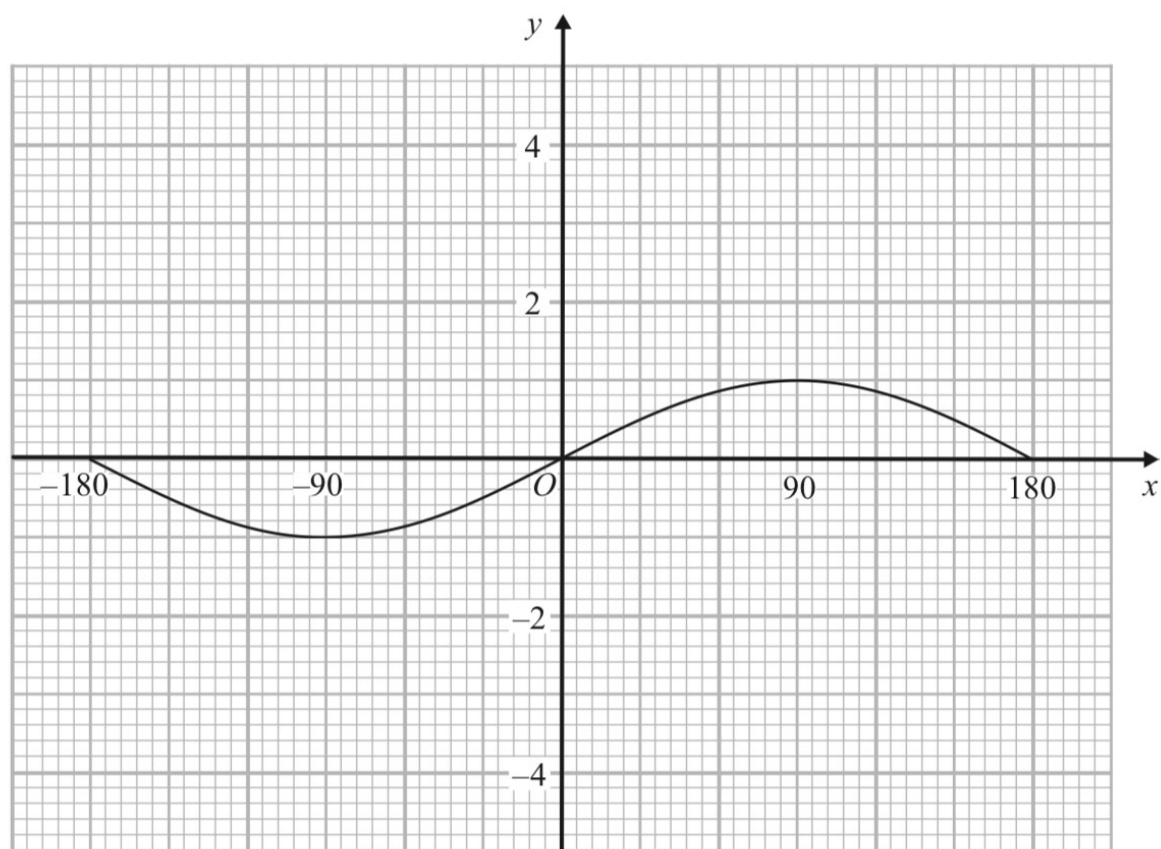


Question 1 (2 Marks)

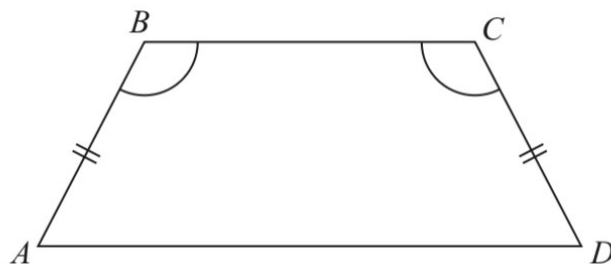
Here is the graph of $y = \sin x^\circ$ for $-180 \leq x \leq 180$



On the grid, sketch the graph of $y = \sin x^\circ - 2$ for $-180 \leq x \leq 180$

Question 2 (4 Marks)

$ABCD$ is a quadrilateral.



$AB = CD$.

Angle $ABC =$ angle BCD .

Prove that $AC = BD$.

Question 3 (5 Marks)

Sketch the graph of

$$y = 2x^2 - 8x - 5$$

showing the coordinates of the turning point and the exact coordinates of any intercepts with the coordinate axes.

Question 4 (4 Marks)

The table shows some values of x and y that satisfy the equation $y = a \cos x^\circ + b$

x	0	30	60	90	120	150	180
y	3	$1 + \sqrt{3}$	2	1	0	$1 - \sqrt{3}$	-1

Find the value of y when $x = 45$