

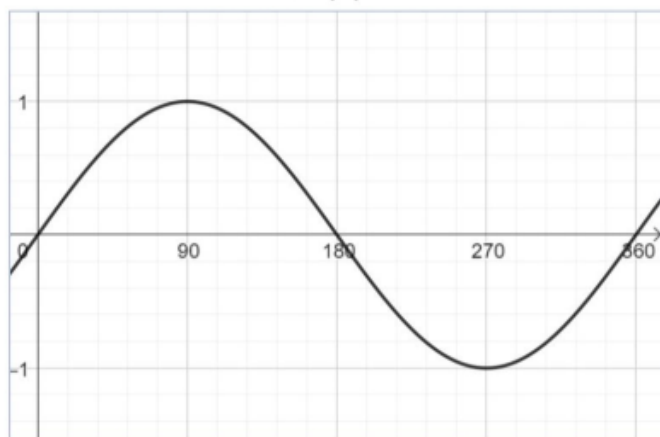


Syllabus Objectives

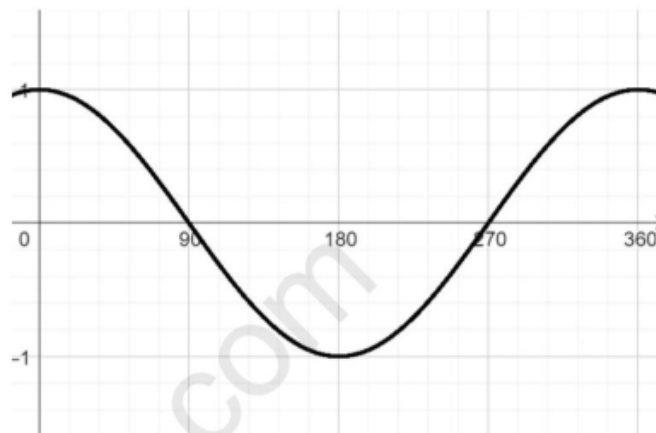
Recognise, sketch and interpret graphs of simple trigonometric functions.

Graph and know the properties of trigonometric functions.

$\sin(x)$

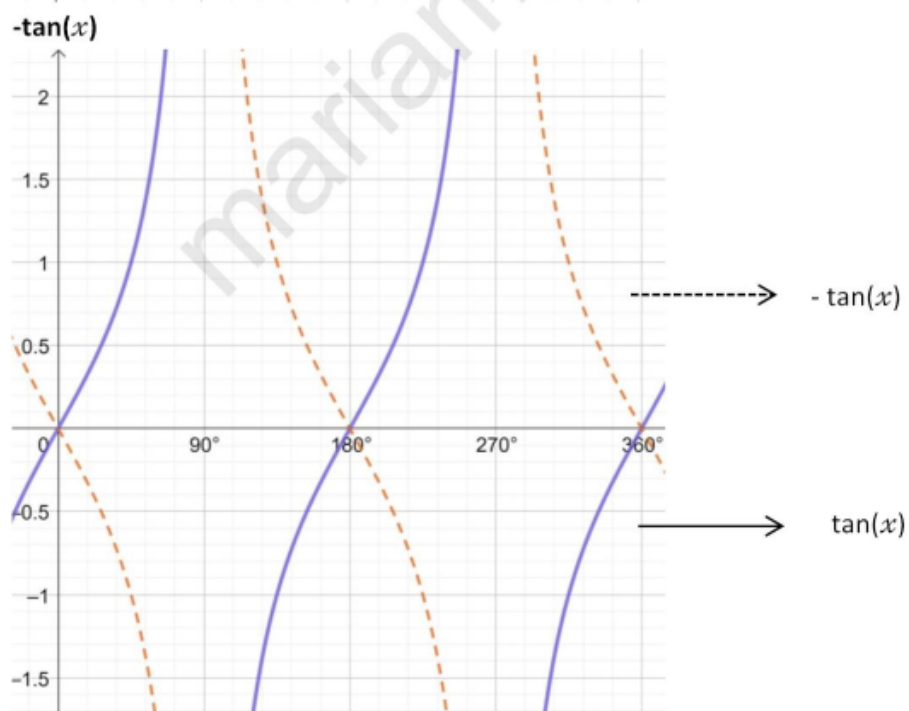
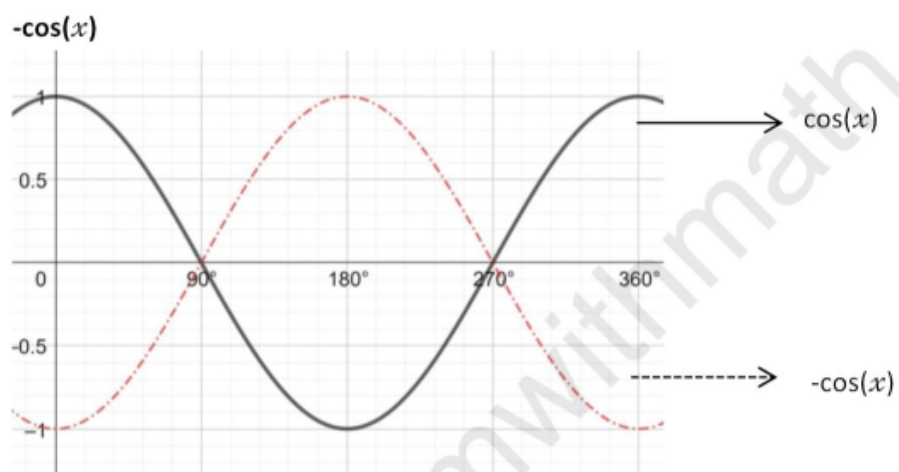
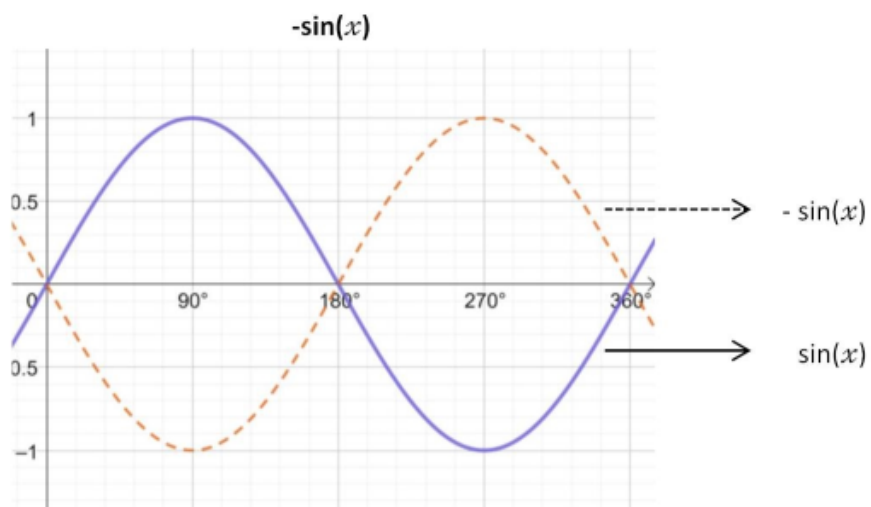


$\cos(x)$

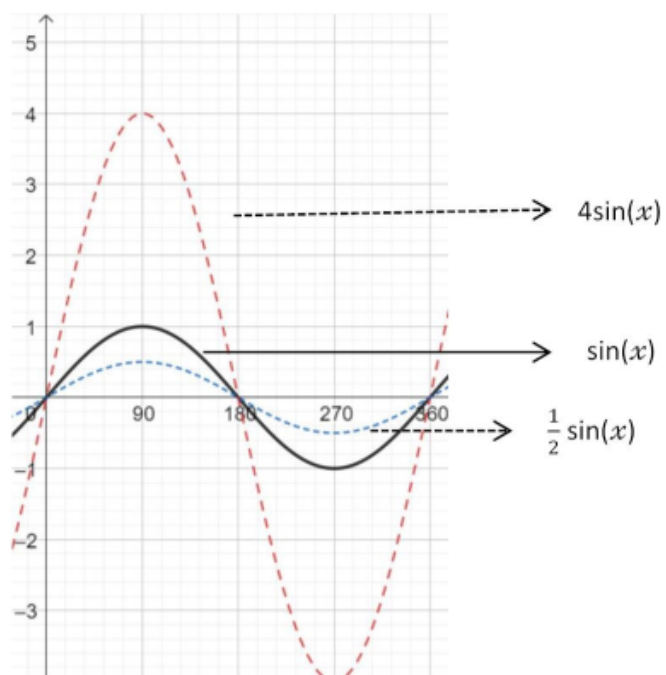


$\tan(x)$

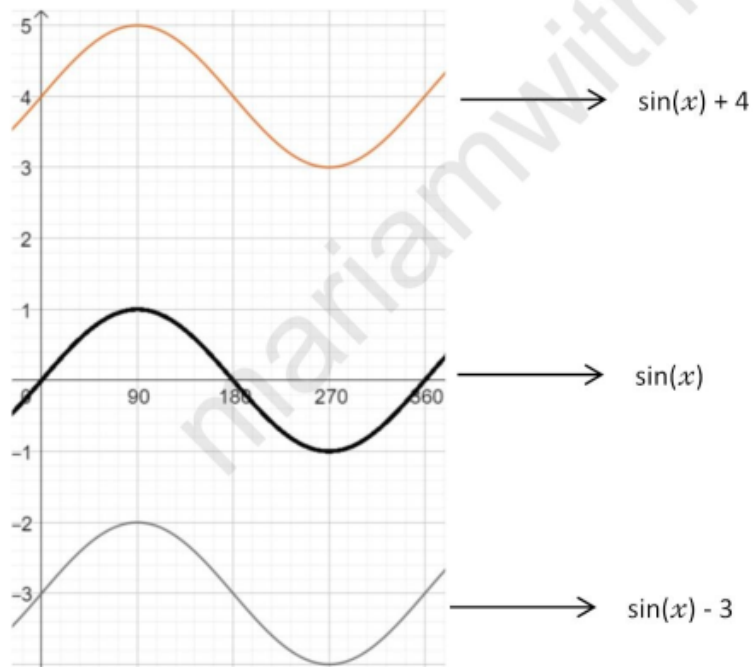




$a\sin(x)$

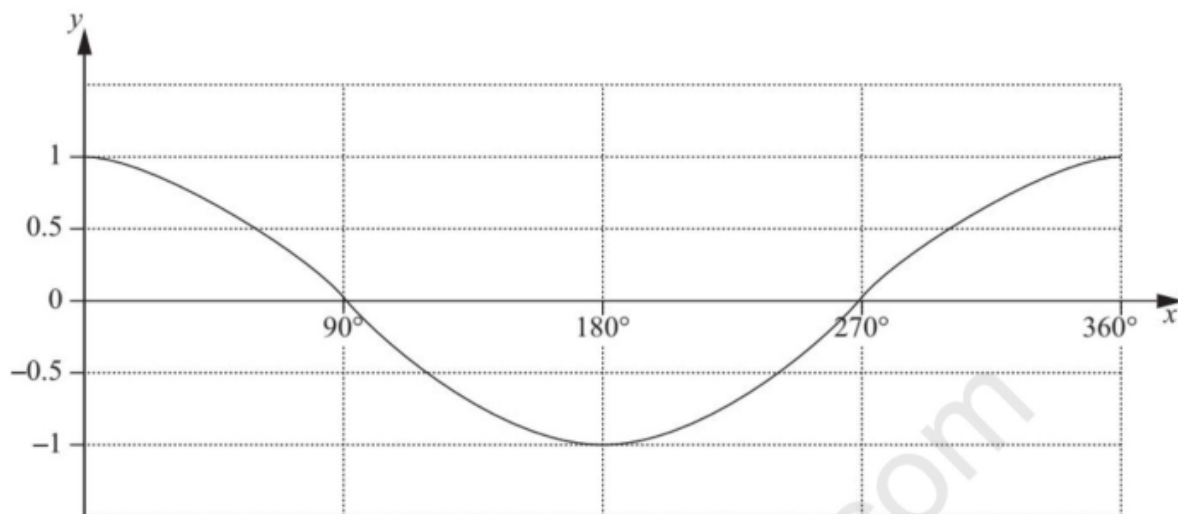


$\sin(x) + c$



Pat Paper Questions

1. The grid shows the graph of $y = \cos x$ for $0^\circ \leq x \leq 360^\circ$.



- (a) Solve the equation $3\cos x = 1$ for $0^\circ \leq x \leq 360^\circ$.

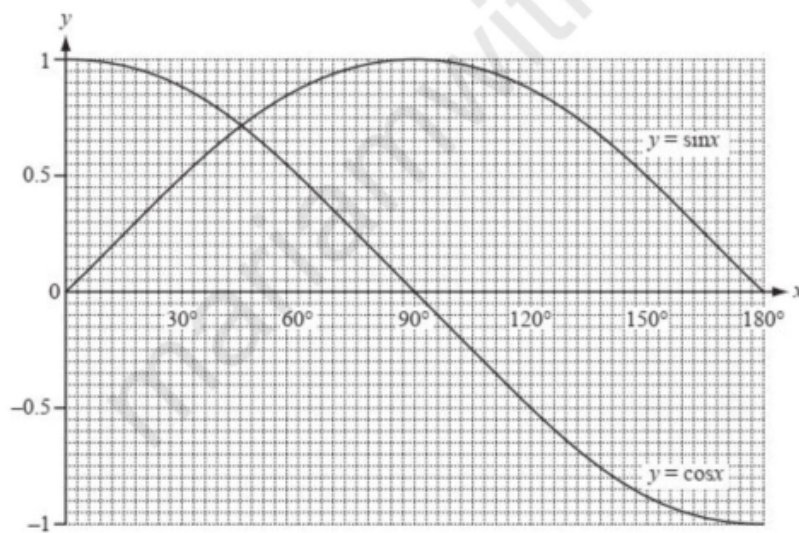
Give your answers correct to 1 decimal place.

..... and [4]

- (b) On the same grid, sketch the graph of $y = \sin x$ for $0^\circ \leq x \leq 360^\circ$. [2]

0580/04/SP/20 Q8 (a)

2. The diagram shows accurate graphs of $y = \sin x$ and $y = \cos x$ for $0^\circ \leq x \leq 180^\circ$.



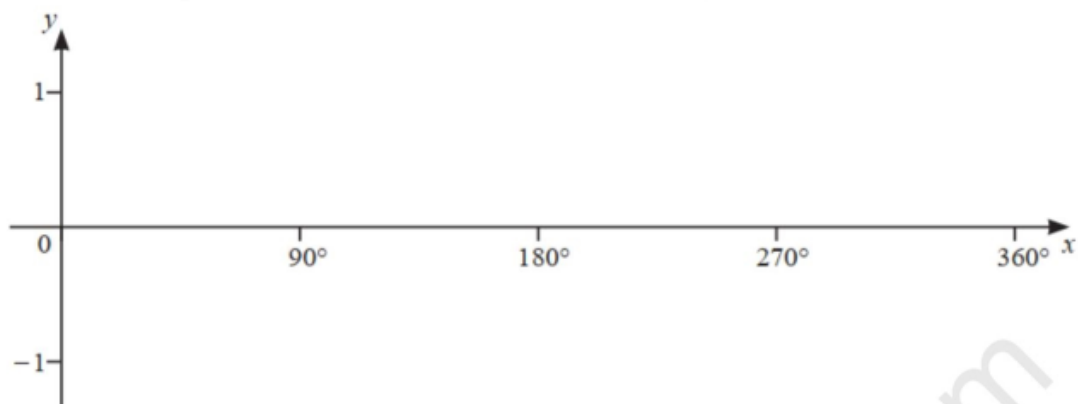
Use the graph to solve the equations

- (a) $\sin x - \cos x = 0$, [1]

- (b) $\sin x - \cos x = 0.5$. [2]

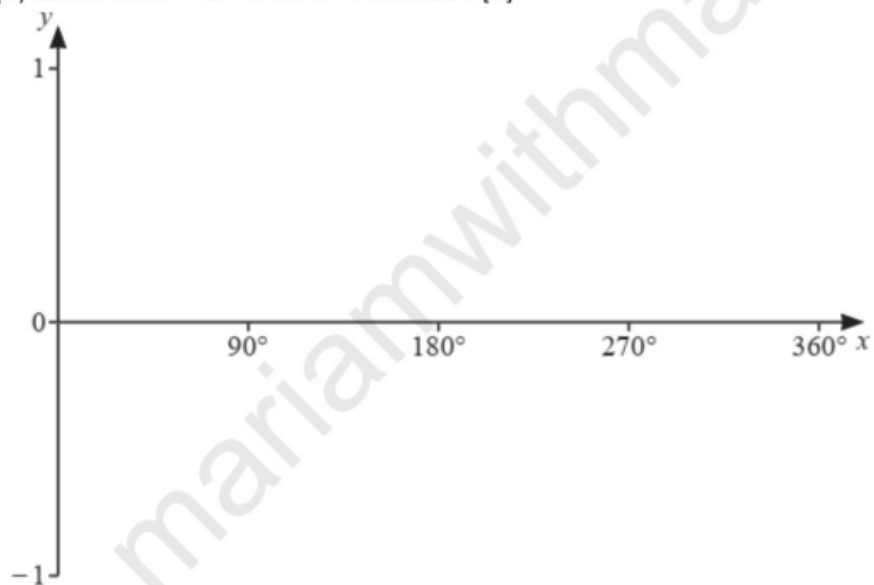
0580/22/M/J/10 Q8)

3. (a) On the diagram, sketch the graph of $y = \cos x$ for $0^\circ \leq x \leq 360^\circ$. [2]
 (b) Solve the equation $4\cos x + 2 = 3$ for $0^\circ \leq x \leq 360^\circ$. [3]



0580/22/F/M/20 Q19

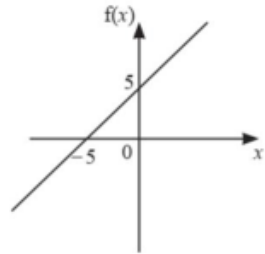
4. (a) (i) On the axes, sketch the graph of $y = \sin x$ for $0^\circ \leq x \leq 360^\circ$. [2]
 (ii) Describe fully the symmetry of the graph of $y = \sin x$ for $0^\circ \leq x \leq 360^\circ$. [2]
 (b) Solve $4\sin x - 1 = 2$ for $0^\circ \leq x \leq 360^\circ$. [3]



0580/41/M/J/20 Q8

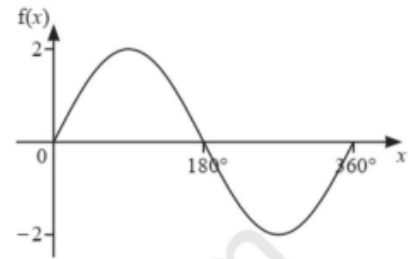
5. (a) The diagrams show the graphs of two functions.
Write down each function.

(i)



[2]

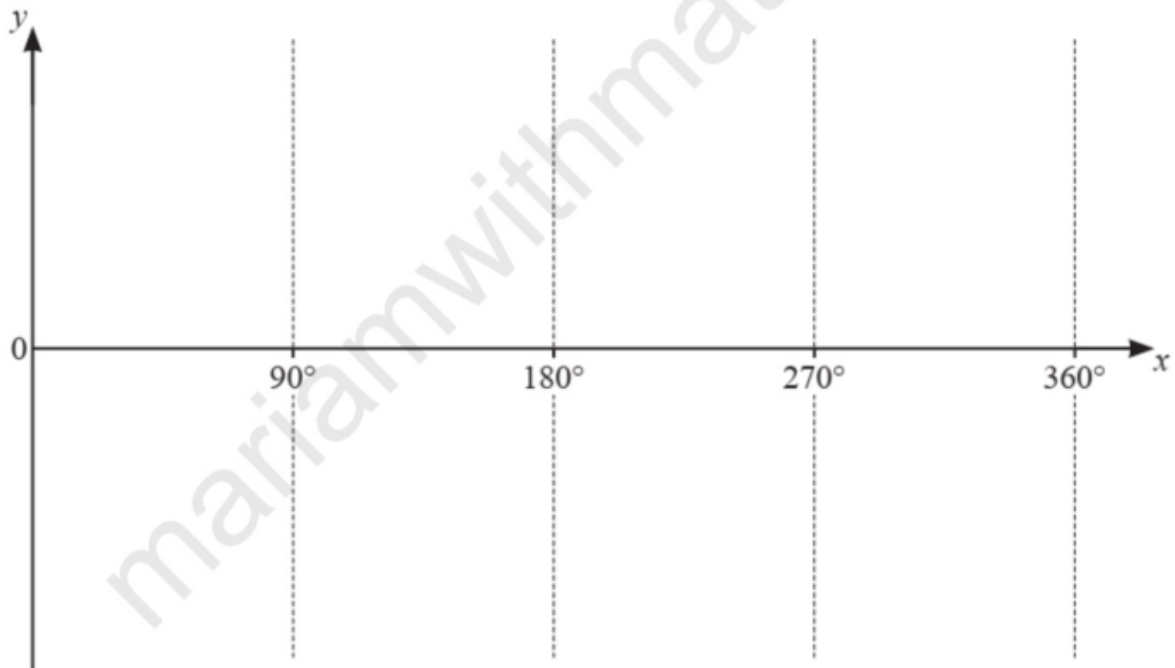
(ii)



[2]

0580/43/M/J/20 Q10 (a)

6. (i) On the diagram, sketch the graph of $y = \tan x$ for $0^\circ \leq x \leq 360^\circ$. [2]



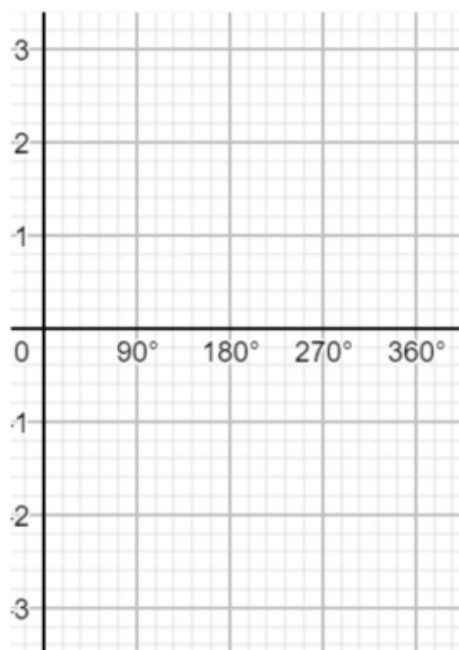
- (ii) Solve the equation $5 \tan x = -7$ for $0^\circ \leq x \leq 360^\circ$. [3]

0580/41/O/N/20 Q10(b)

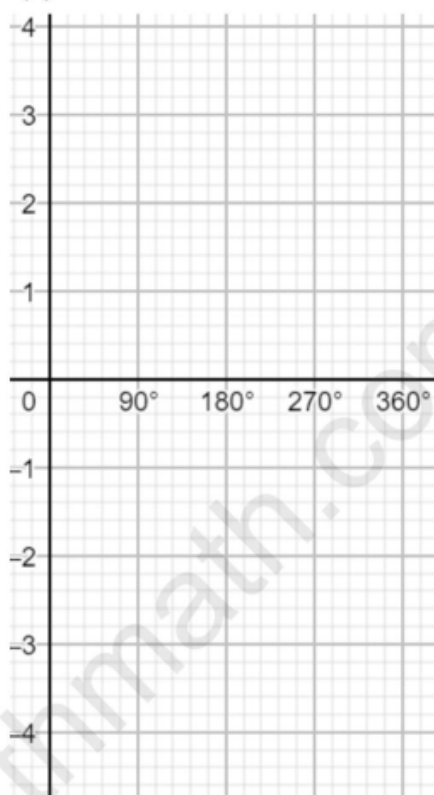
More Practice Questions

On the given grids sketch the graphs of

(a) $-3\cos x^\circ$



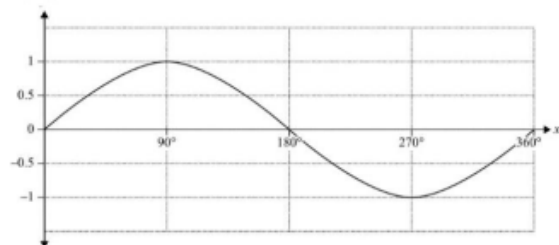
(b) $2\sin x^\circ + 2$



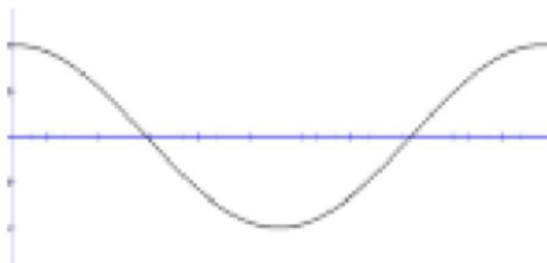
Answers Past Paper Questions

1) 70.5 and 289.5 (b) Answer at the end
2) (a) 43 to 47 (b) 64 to 68
3) (a) Answer at the end (b) 75.5 and 284.4 to 284.5
4) (a)(i) Correct Sketch (ii) Rotational [symmetry] order 2 [centre] (180, 0) (b) 48.6 and 131.4
5) (i) $y = x + 5$ (ii) $y = 2\sin x$
6) (i) Answer at the end (ii) 125.5 and 305.5

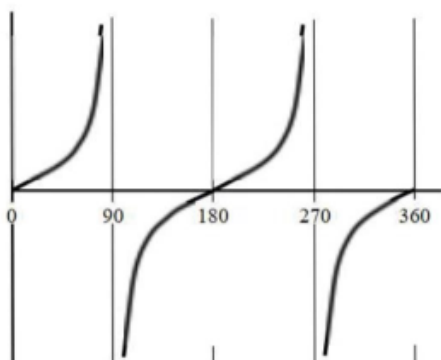
1(b)



3(a)

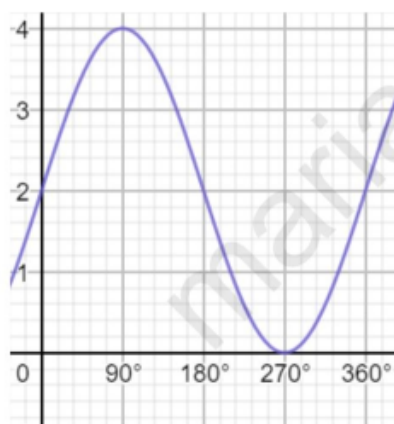


6(i)



Answer More Practice Question

(a)



(b)

