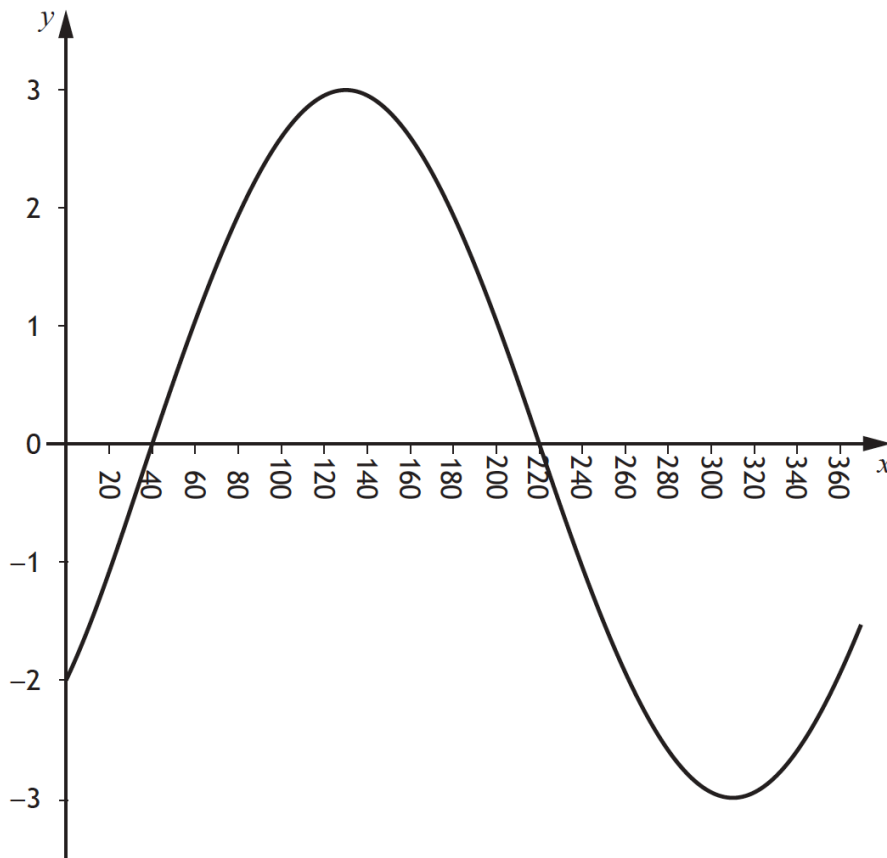


Note that Trigonometry is different from Using Trigonometry which includes the Sine and Cosine Rules

Marks are indicated in brackets after each question number

2014 Paper 1 Question 10, (2)

The graph of $y = a \sin(x+b)^\circ$, $0 \leq x \leq 360$, is shown below.



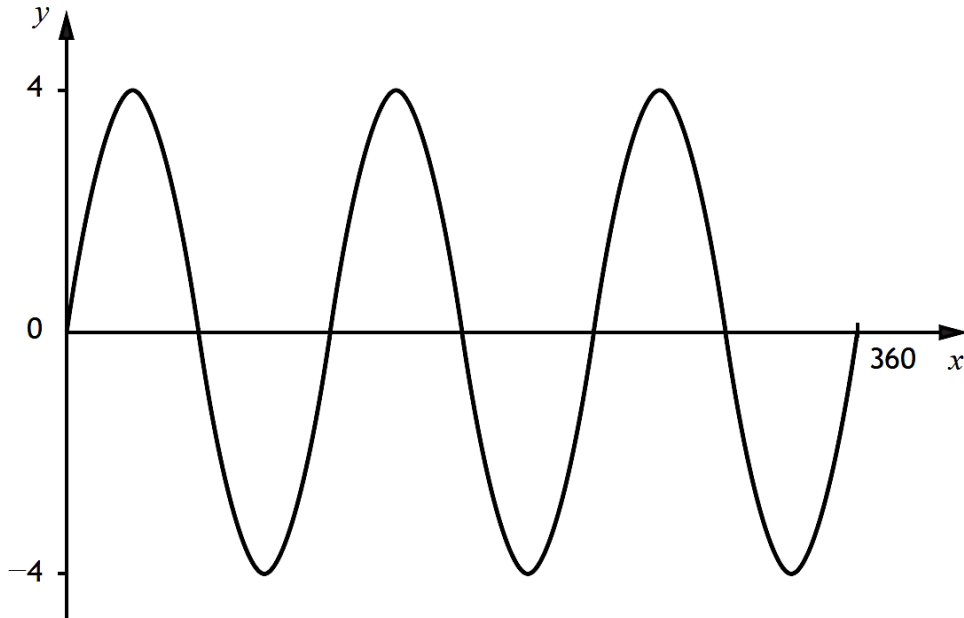
Write down the values of a and b .

2014 Paper 2 Question 12, (3)

Solve the equation $11\cos x^\circ - 2 = 3$, for $0 \leq x \leq 360$.

2015 Paper 1 Question 6, (2)

Part of the graph of $y = a \sin bx^\circ$ is shown in the diagram.



State the values of a and b .

2015 Paper 1 Question 9, (2)

Write the following in order of size starting with the smallest.

$\cos 90^\circ$ $\cos 100^\circ$ $\cos 300^\circ$

Justify your answer.

2016 Paper 1 Question 11, (2)

Simplify

$$\tan^2 x^\circ \cos^2 x^\circ .$$

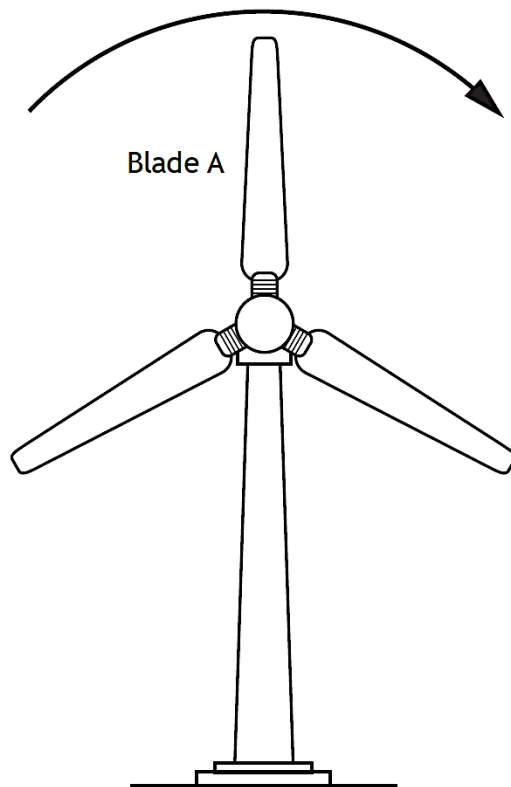
Show your working.

2016 Paper 2 Question 14, (3)

Solve the equation $2 \tan x^\circ + 5 = -4$, for $0 \leq x \leq 360$.

2017 Paper 2 Question 15, (1) (1) (4)

A wind turbine has three blades as shown below.



The height, h metres, of the tip of blade A above the ground in each rotation is given by

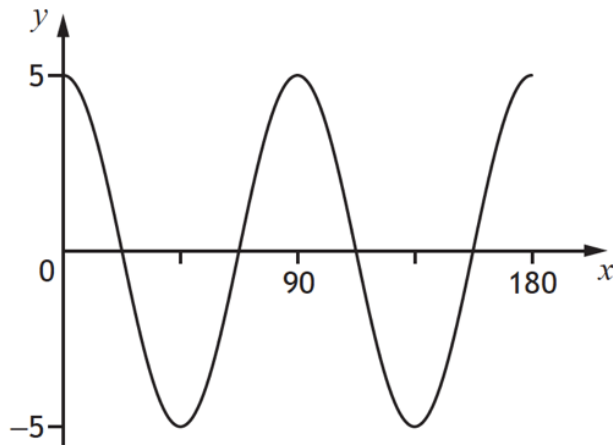
$$h = 40 + 23 \cos x^\circ, \quad 0 \leq x < 360$$

where x is the angle blade A has turned clockwise from its vertical position.

- Calculate the height of the tip of blade A after it has turned through an angle of 60° .
- Find the minimum height of the tip of blade A above the ground.
- Calculate the values of x for which the tip of blade A is 61 metres above the ground.

2018 Paper 1 Question 6, (2)

Part of the graph of $y = a \cos bx^\circ$ is shown in the diagram.



State the values of a and b .

2018 Paper 1 Question 12, (1)

Given that $\cos 60^\circ = 0.5$, state the value of $\cos 240^\circ$.

2018 Paper 1 Question 18, (2)

Express $\sin x^\circ \cos x^\circ \tan x^\circ$ in its simplest form.

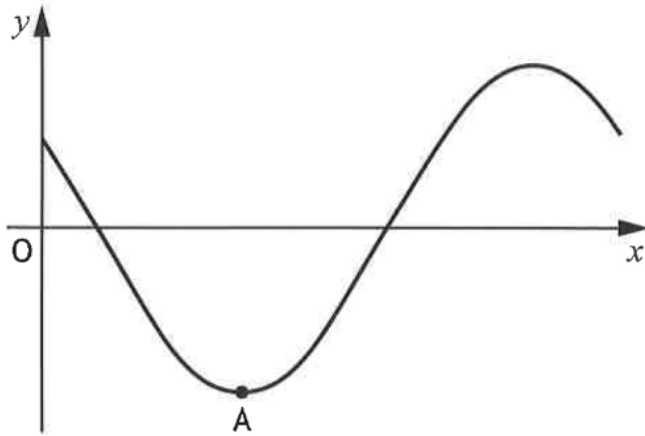
Show your working.

2018 Paper 2 Question 8, (3)

Solve the equation $7 \sin x^\circ + 2 = 3$, for $0 \leq x < 360$.

2019 Paper 1 Question 13, (2)

Part of the graph of $y = 3 \cos(x + 45)^\circ$ is shown in the diagram.



The graph has a minimum turning point at A.

State the coordinates of A.

2019 Paper 2 Question 14, (3)

Solve the equation $5 \cos x^\circ + 2 = 1$, $0 \leq x < 360$.

2019 Paper 2 Question 17, (2)

Expand and simplify

$$(\sin x^\circ + \cos x^\circ)^2.$$

Show your working.