



Aberdare Community School
Mathematics Department

WJEC GCSE
Higher – Non Calculator
Shape

Trig graphs

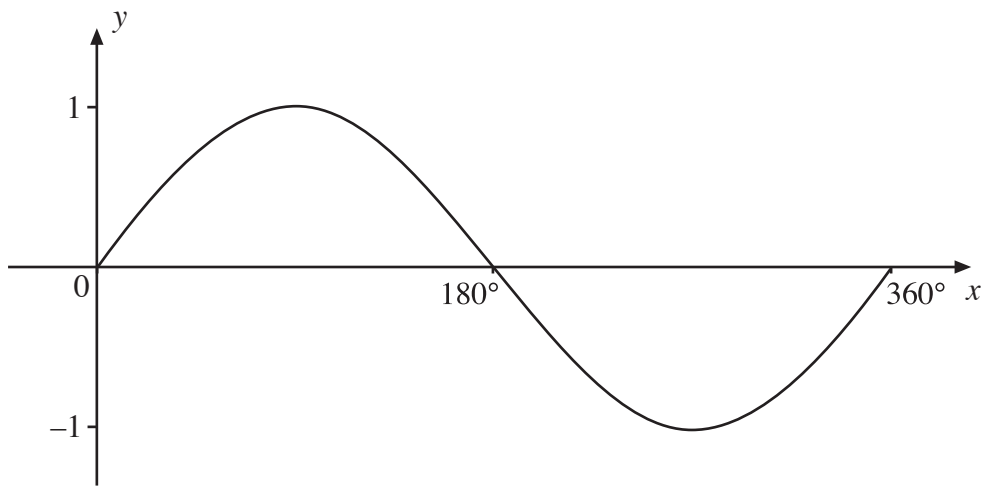
Name:

Set:

Date:

Teacher:

18. (a) The diagram shows a sketch of $y = \sin x$ for values of x from 0° to 360° .



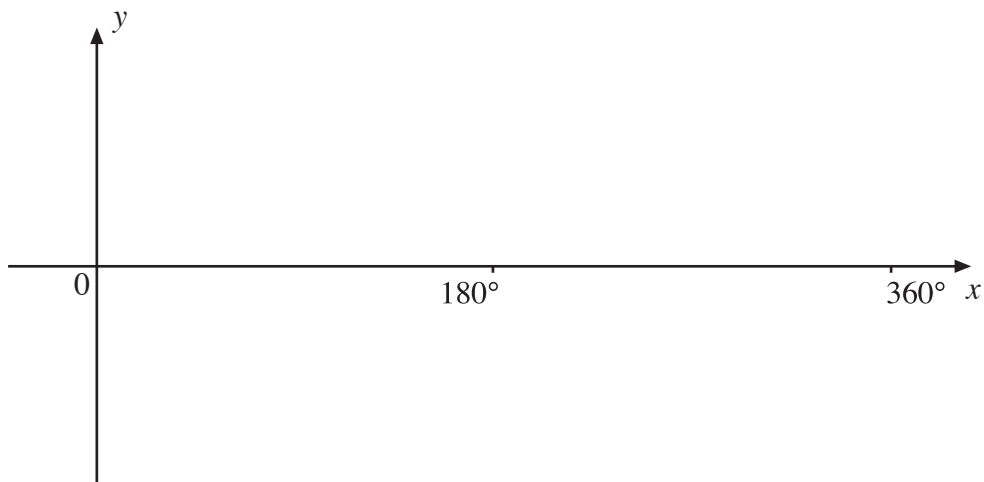
Given that $\sin 43^\circ = 0.682$ write down all the solutions of the equation $\sin x = -0.682$ for values of x from 0° to 360° .

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[2]

- (b) Sketch the graph of $y = \sin x + 1$ for values of x from 0° to 360° .



[2]

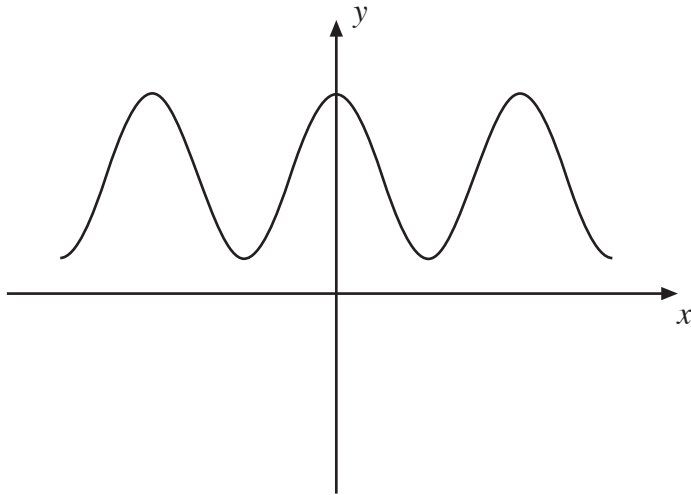
(c) Sketch the graph of $y = \tan x$ for values of x from 0° to 360° .



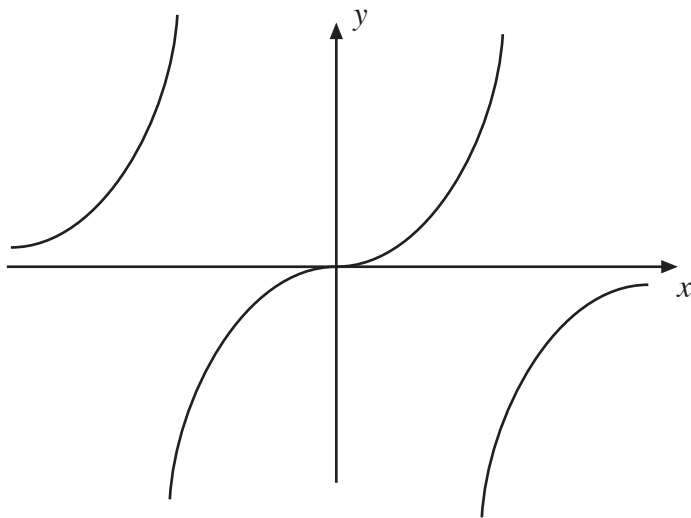
[2]

14. Match each of the following equations to the appropriate sketch by writing the equations in the spaces below.

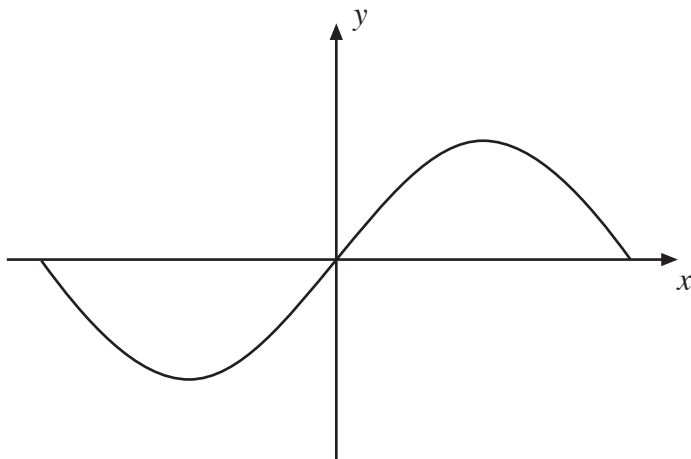
$y = \sin x$ $y = \tan x$ $y = 2 + \cos x$



Equation

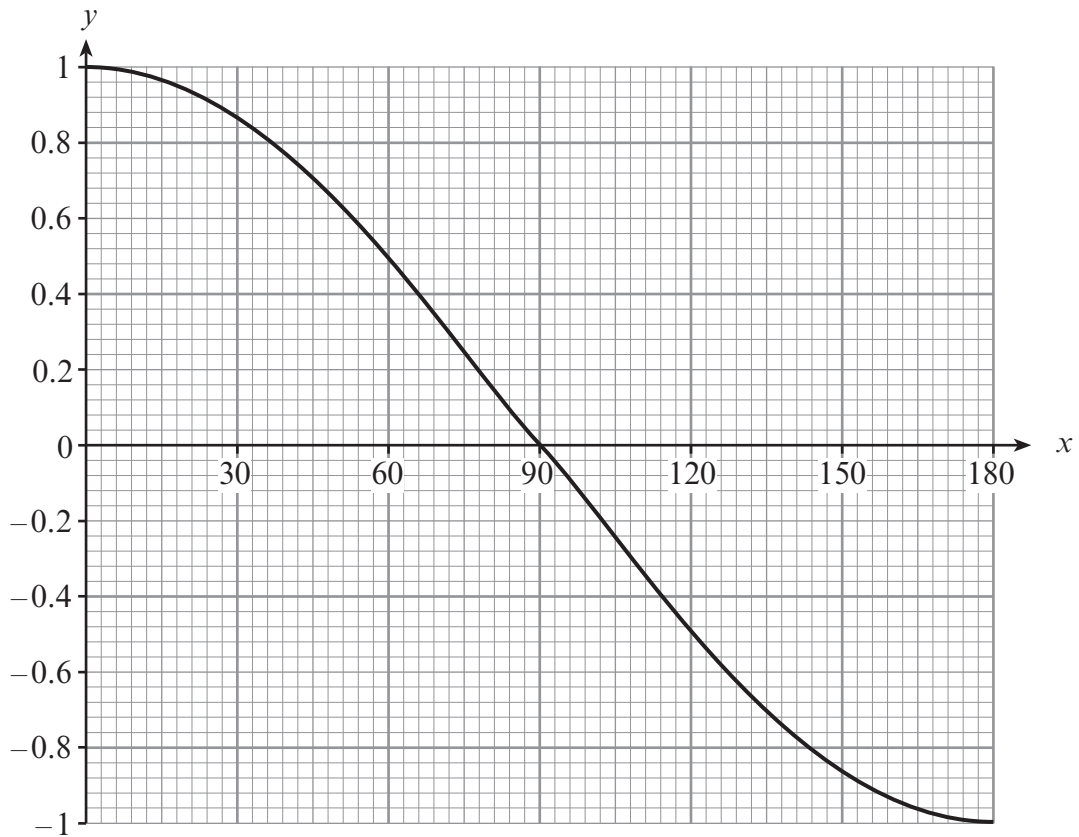


Equation



Equation

19. The graph of $y = \cos x$ for the values of x between 0° and 180° is given below.



Find all the solutions of the following equations in the range -180° to 180° .

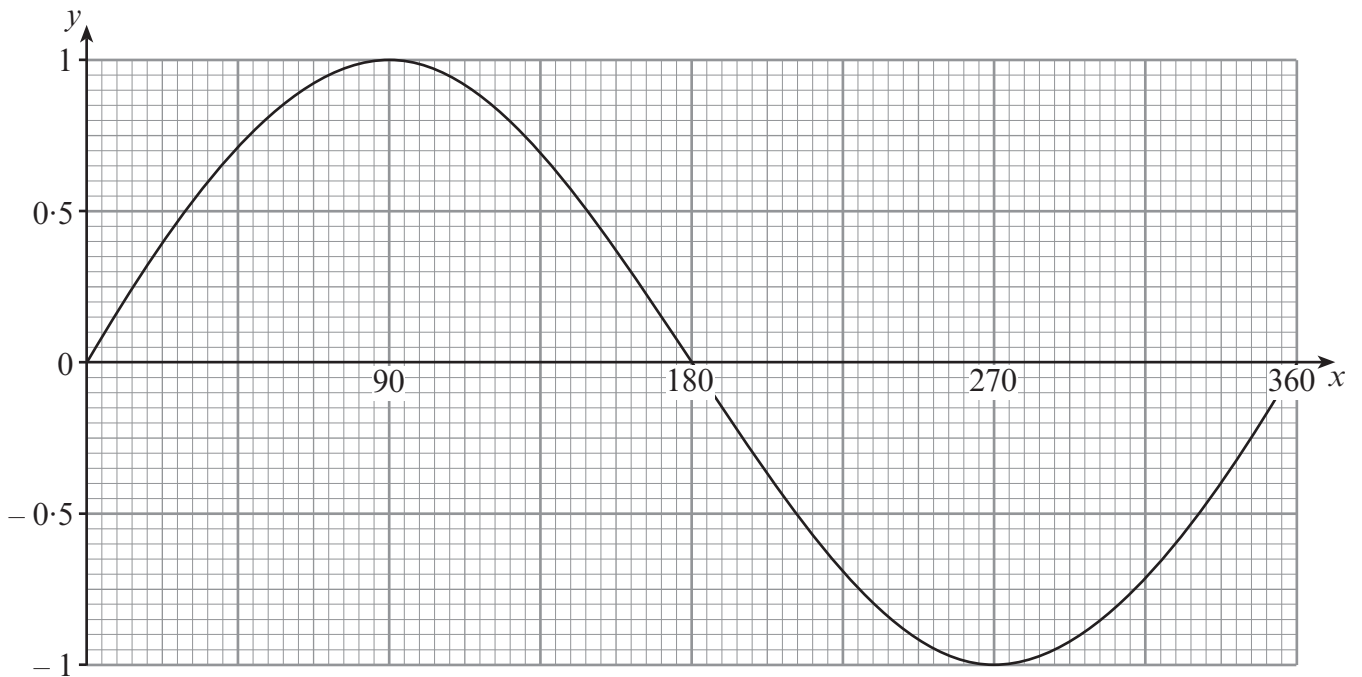
(a) $\cos x = 0$

..... [2]

(b) $\cos x = -0.6$

..... [2]

17. The diagram below shows the graph of $y = \sin x$ for values of x from 0° to 360° .



Find all solutions of the following equation in the range 0° to 360° .

$$\sin x = -0.8$$

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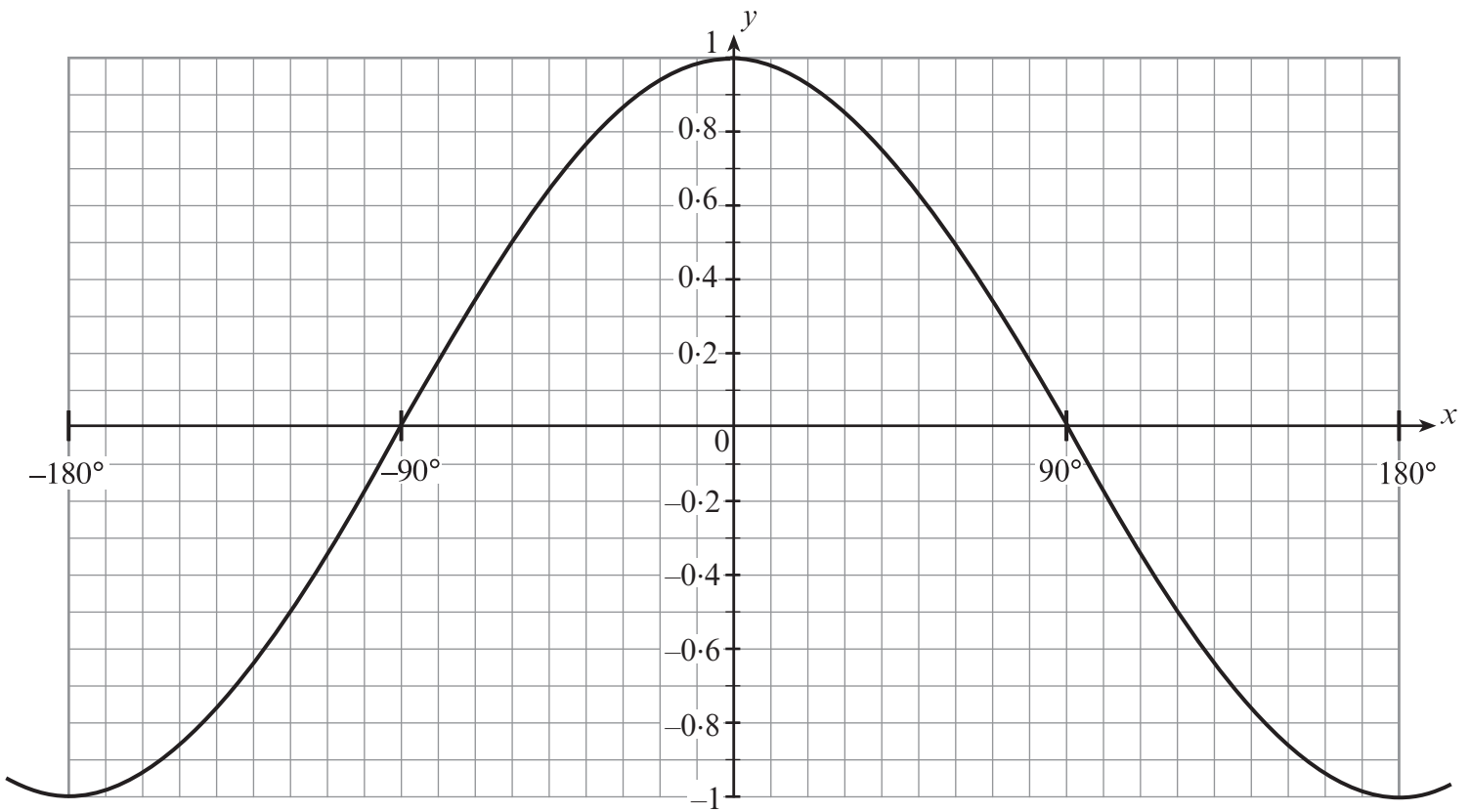
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[2]

(b) The diagram shows a sketch of $y = \cos x$.



Find the values of x in the range $-180^\circ \leq x \leq 180^\circ$ which satisfy the equation $\cos x = 0.5$.

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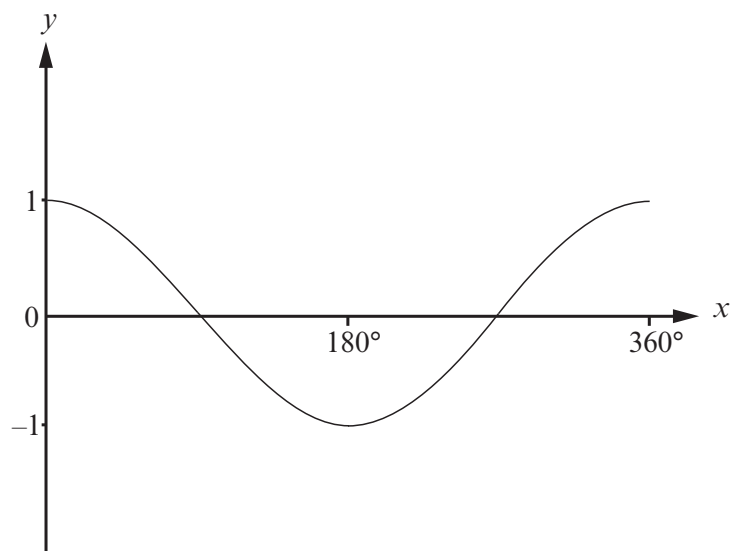
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[2]

17. (a) The diagram shows a sketch of $y = \cos x$ for values of x from 0° to 360° .



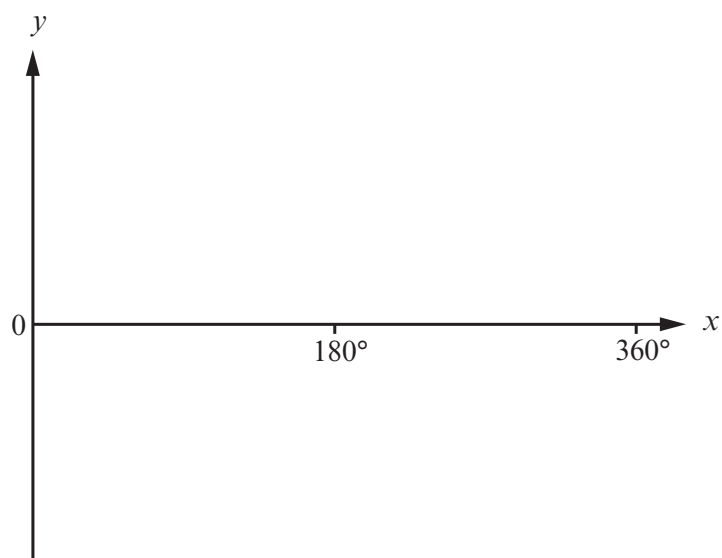
Given that $\cos 58^\circ = 0.5299$, write down all the solutions of the equation $\cos x = -0.5299$ for values of x from 0° to 360° .

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[2]

- (b) Sketch the graph of $y = \cos x + 1$ for values of x from 0° to 360° .



[2]

15.

A	$\sin 46^\circ$
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E	$\sin 44^\circ$
---	-----------------

B	$\sin 146^\circ$
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F	$\sin 316^\circ$
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C	$\sin 134^\circ$
---	------------------

G	$\sin 224^\circ$
---	------------------

D	$\sin 314^\circ$
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H	$\sin 136^\circ$
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Sallie and Bethan are playing a game by matching cards of equal value.

Sallie matches card A with card D.

Bethan matches card E with card H.

Who is correct?

You must sketch a graph to explain your answer.

[3]

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Space for sketch:

END OF PAPER