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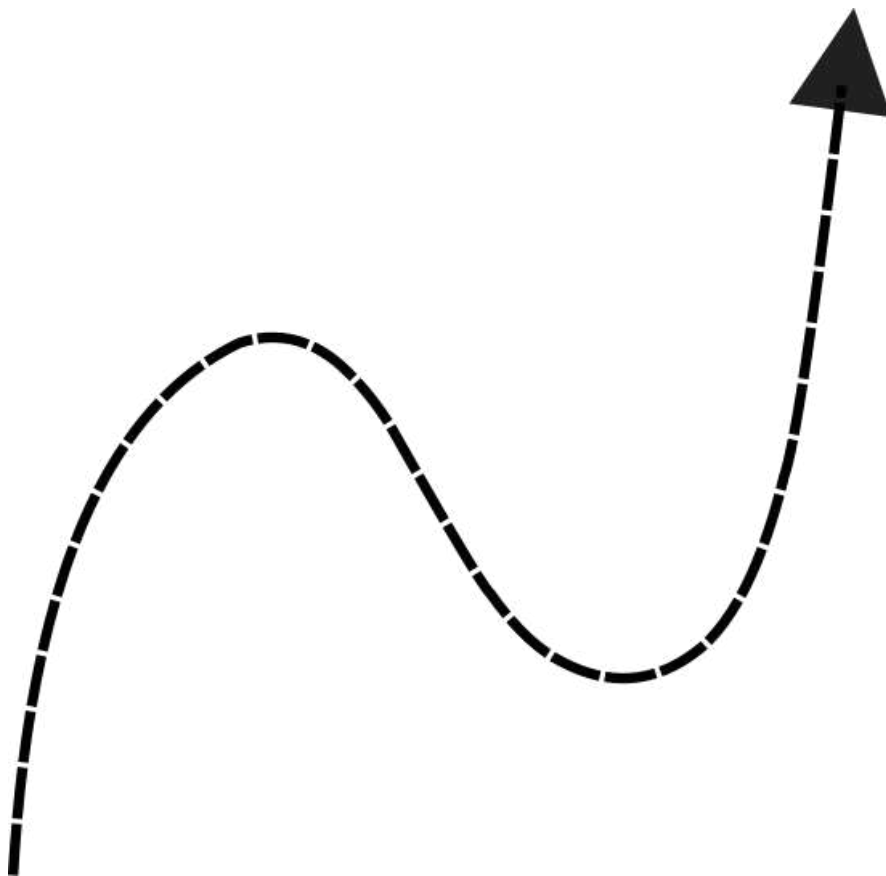
# EDEXCEL IGCSE MATHEMATICS

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PAPER 2H & 2HR (LINEAR)

**GRAPHS OF FUNCTIONS**

QP & MS (2018 - 2025)



COMPILED BY:  
SIR MUHAMMAD ABDULLAH SHAH



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# EDEXCEL IGCSE MATHEMATICS LINEAR FOR MAY & OCT 2026

by Sir Muhammad Abdullah Shah

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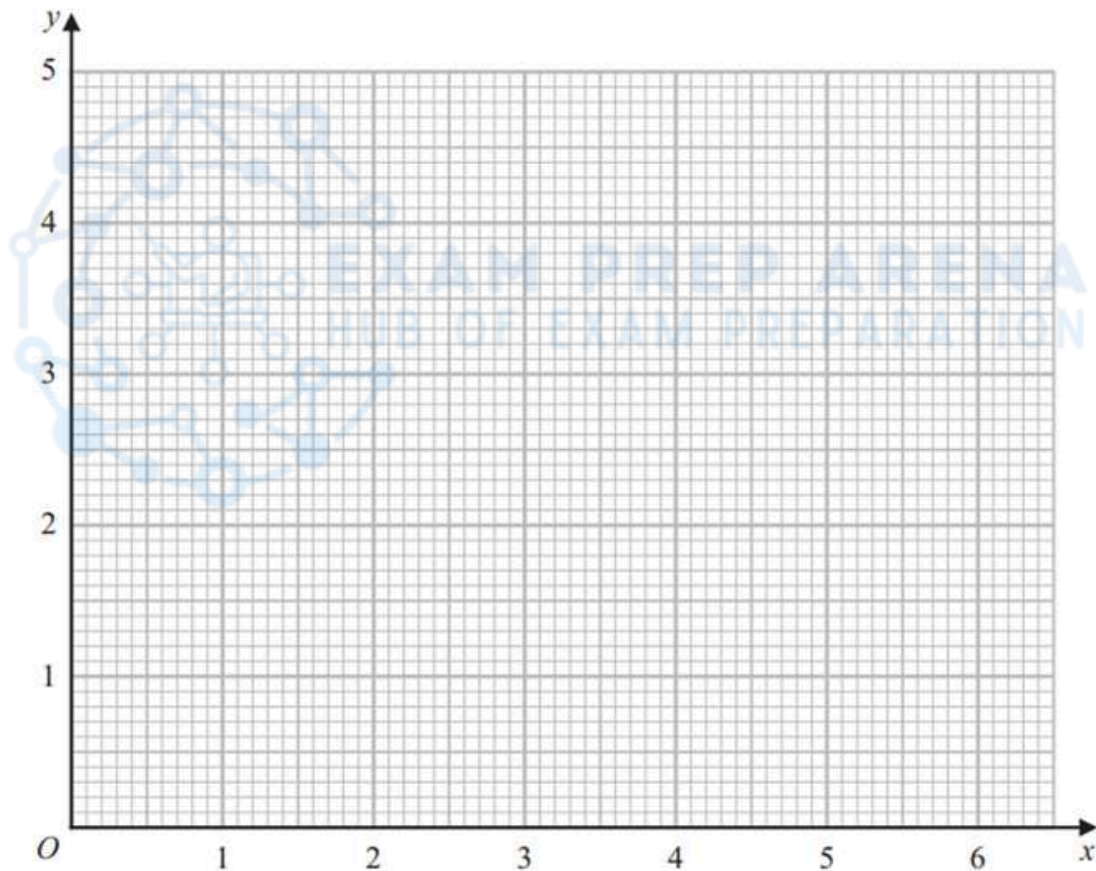
1. Nov 2025 2H/Q12

(a) Complete the table of values for  $y = \frac{1}{2}\left(x + \frac{4}{x}\right)$

$x$	0.5	1	2	3	4	5	6
$y$	4.25			2.17	2.5	2.9	3.33

(1)

(b) Draw the graph of  $y = \frac{1}{2}\left(x + \frac{4}{x}\right)$  for  $0.5 \leq x \leq 6$



(2)



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- (c) By drawing a suitable line on the grid, find estimates for the solutions of  
the equation  $x + \frac{4}{x} = 6$

Give your answers correct to one decimal place.

(2)

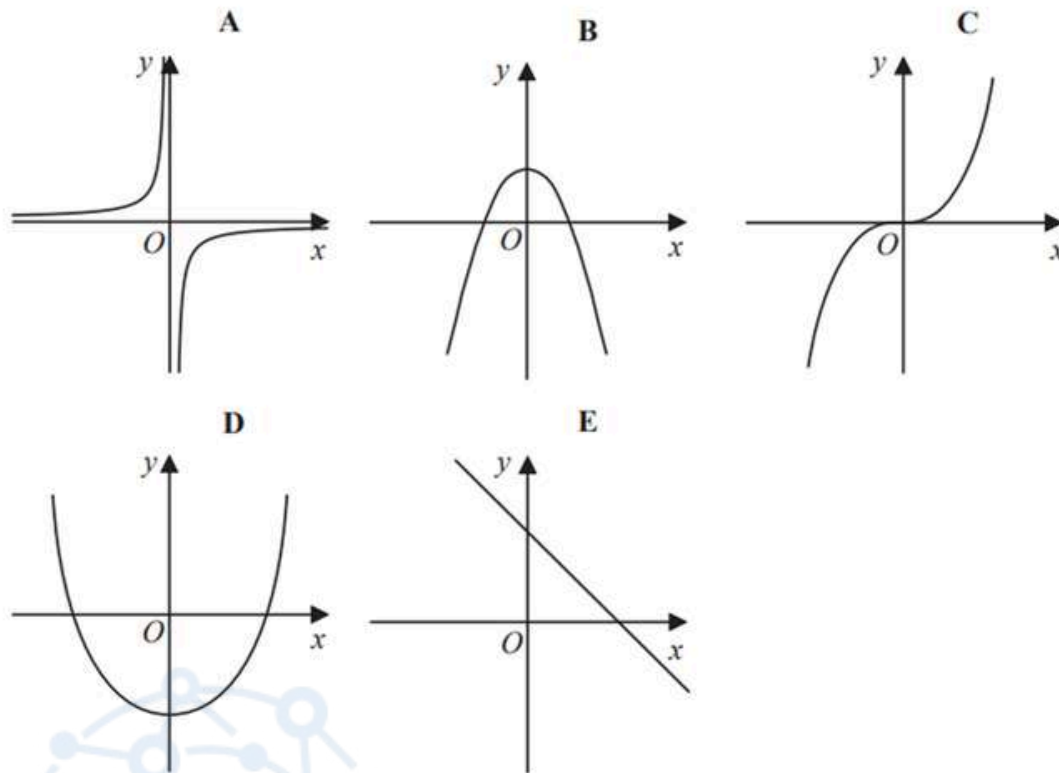
(Total for Question 12 is 5 marks)



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2. June 2025 2H/Q14

Here are five graphs.



(a) Write down the letter of the graph that could have the equation  $y = 5 - x^2$

.....  
(1)

(b) Write down the letter of the graph that could have the equation  $y = 2x^3$

.....  
(1)

(Total for Question 14 is 2 marks)



EDEXCEL IGCSE MATHEMATICS LINEAR 2H & 2HR – GRAPHS OF FUNCTIONS

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3. June 2025 2H/Q25

(a) Write  $28 + 24x - 6x^2$  in the form  $a - b(x - c)^2$  where  $a$ ,  $b$  and  $c$  are integers.



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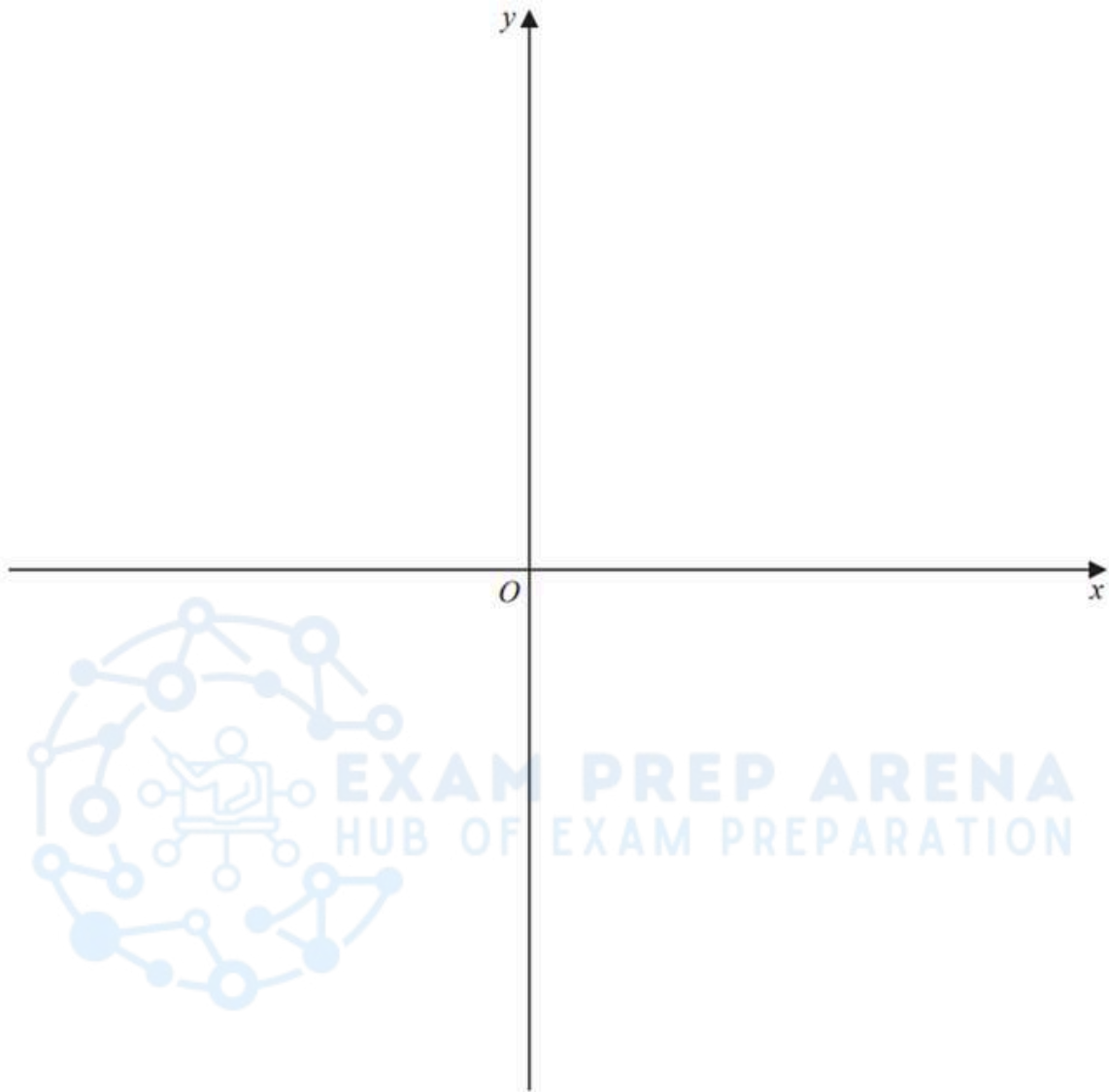
(3)



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(b) On the axes below, sketch the graph of  $y = 28 + 24x - 6x^2$

Show clearly the coordinates of the turning point and the coordinates of the point of intersection of the graph with the  $y$ -axis.



(3)

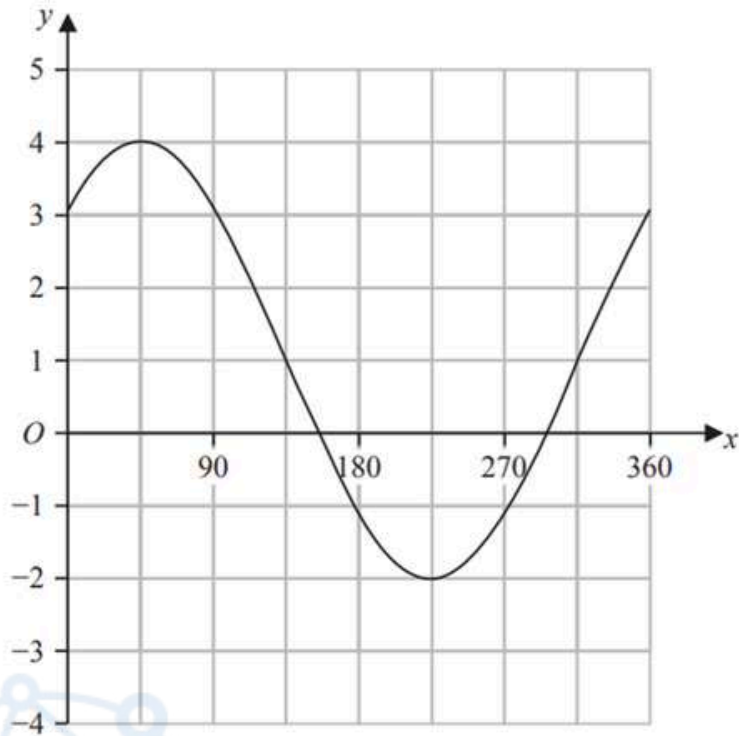
(Total for Question 25 is 6 marks)



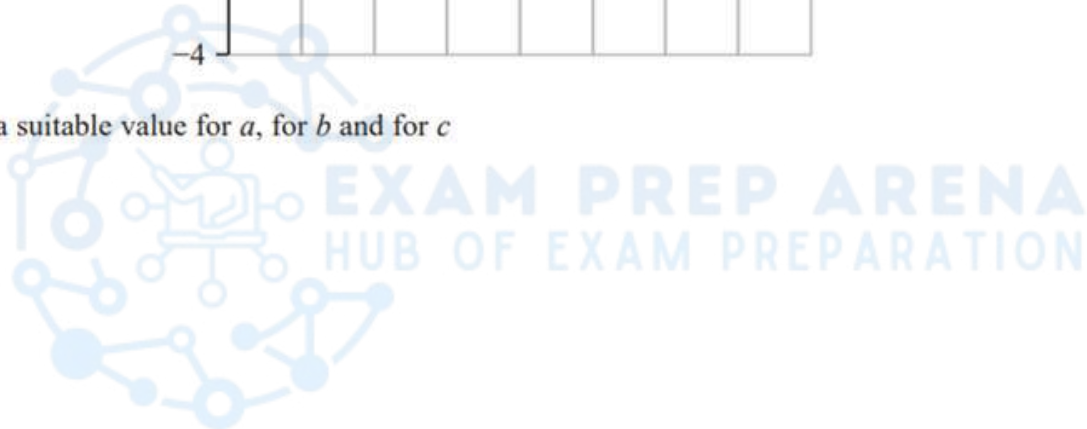
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4. June 2025 2HR/Q25

The graph of  $y = a \sin(x + b)^\circ + c$  for  $0 \leq x \leq 360$  is drawn on the grid below.



Find a suitable value for  $a$ , for  $b$  and for  $c$



$a =$  .....

$b =$  .....

$c =$  .....

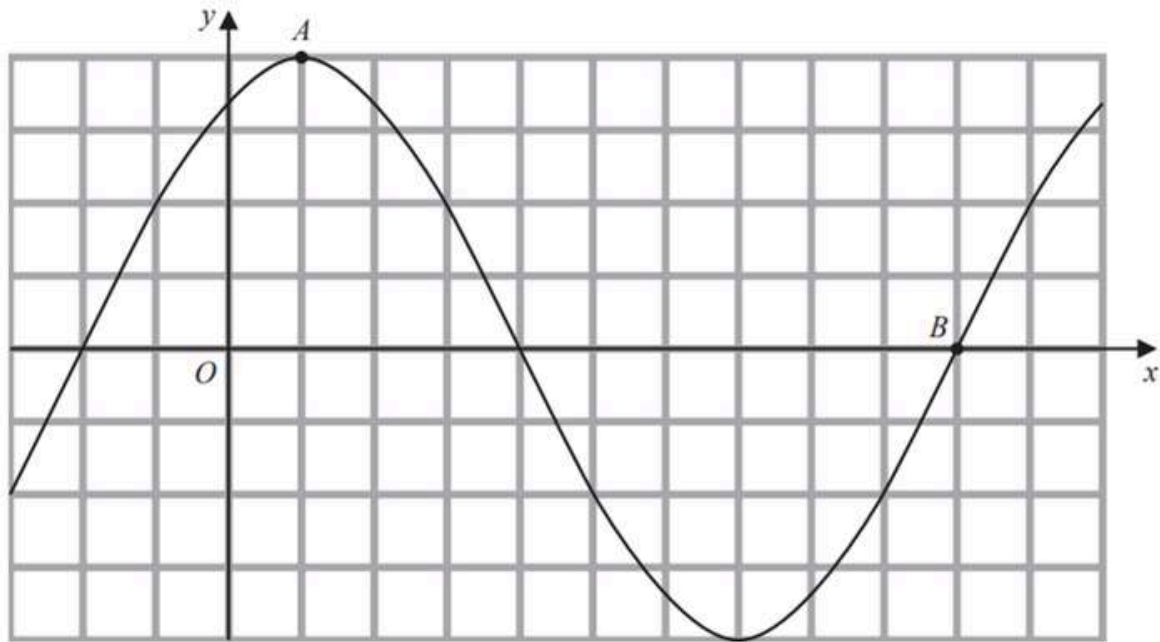
(Total for Question 25 is 3 marks)



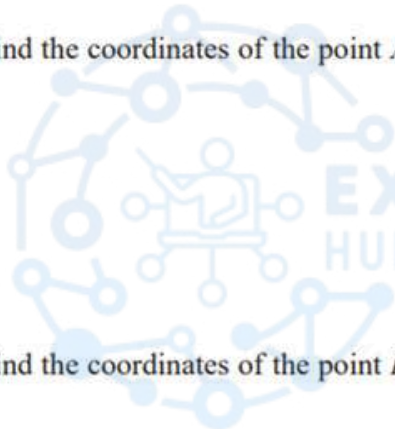
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5. June 2024 2H/Q25

The diagram shows a sketch of the graph of  $y = 2\sin(x + 60)^\circ$



(i) Find the coordinates of the point  $A$



EXAM PREP ARENA  
 HUB OF EXAM PREPARATION

(....., .....)  
 (1)

(ii) Find the coordinates of the point  $B$

(....., .....)  
 (1)

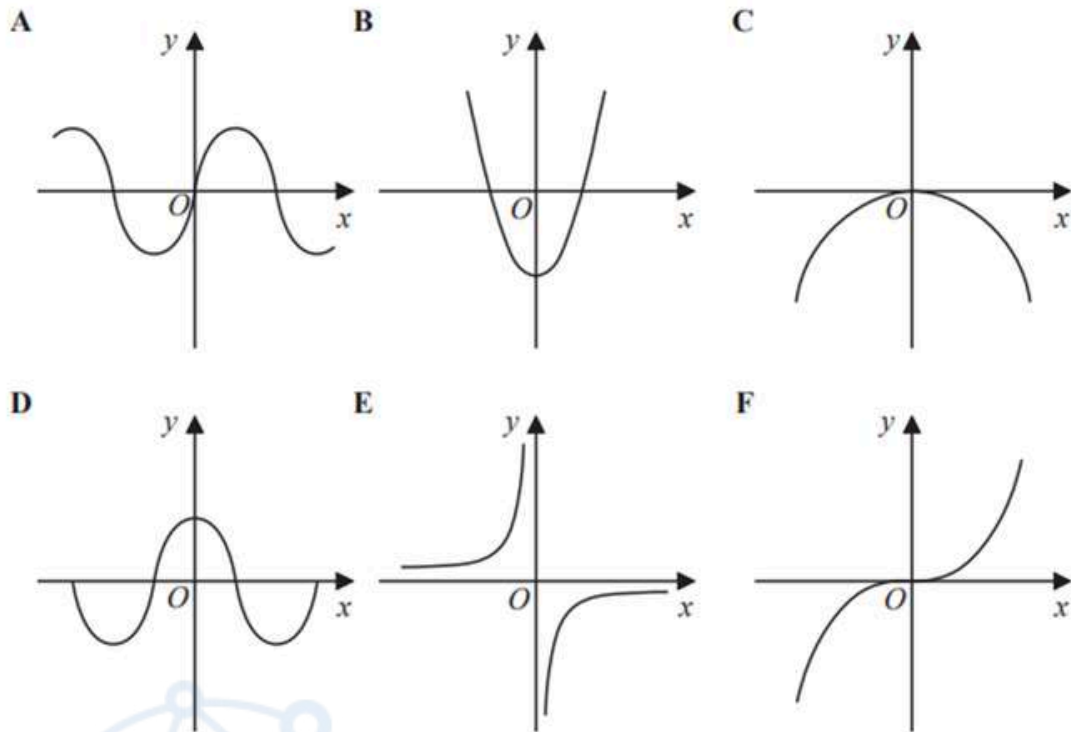
(Total for Question 25 is 2 marks)



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6. June 2024 2HR/Q16

Here are six graphs.



Write down the letter of the graph that could have the equation

(i)  $y = -\frac{1}{x}$

EXAM PREP ARENA  
 HUB OF EXAM PREPARATION

.....  
 (1)

(ii)  $y = \sin x^\circ$

.....  
 (1)

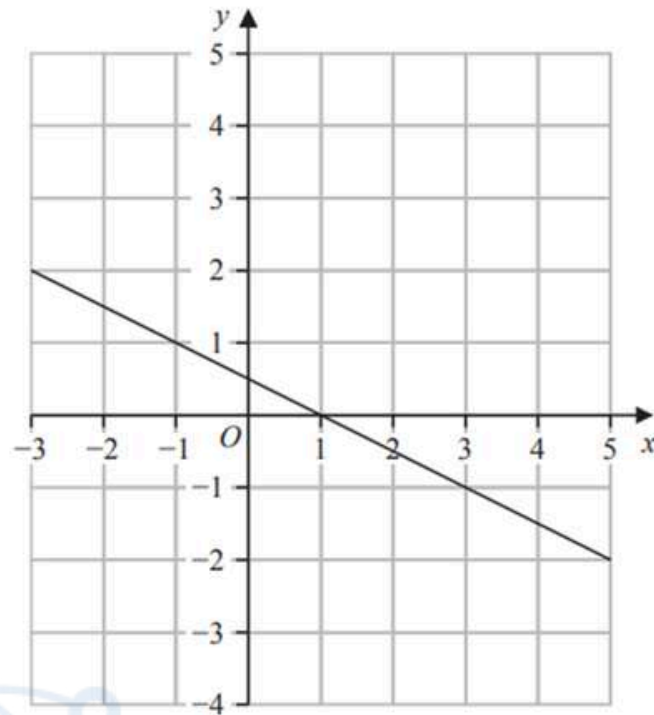
(Total for Question 16 is 2 marks)



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7. Nov 2023 2H/Q14

Here is the graph of the equation  $2y + x = 1$  drawn on a grid.



By drawing another straight line on the grid, solve the simultaneous equations

$$\begin{aligned}y - x - 2 &= 0 \\ 2y + x &= 1\end{aligned}$$

$x =$  .....

$y =$  .....

(Total for Question 14 is 3 marks)



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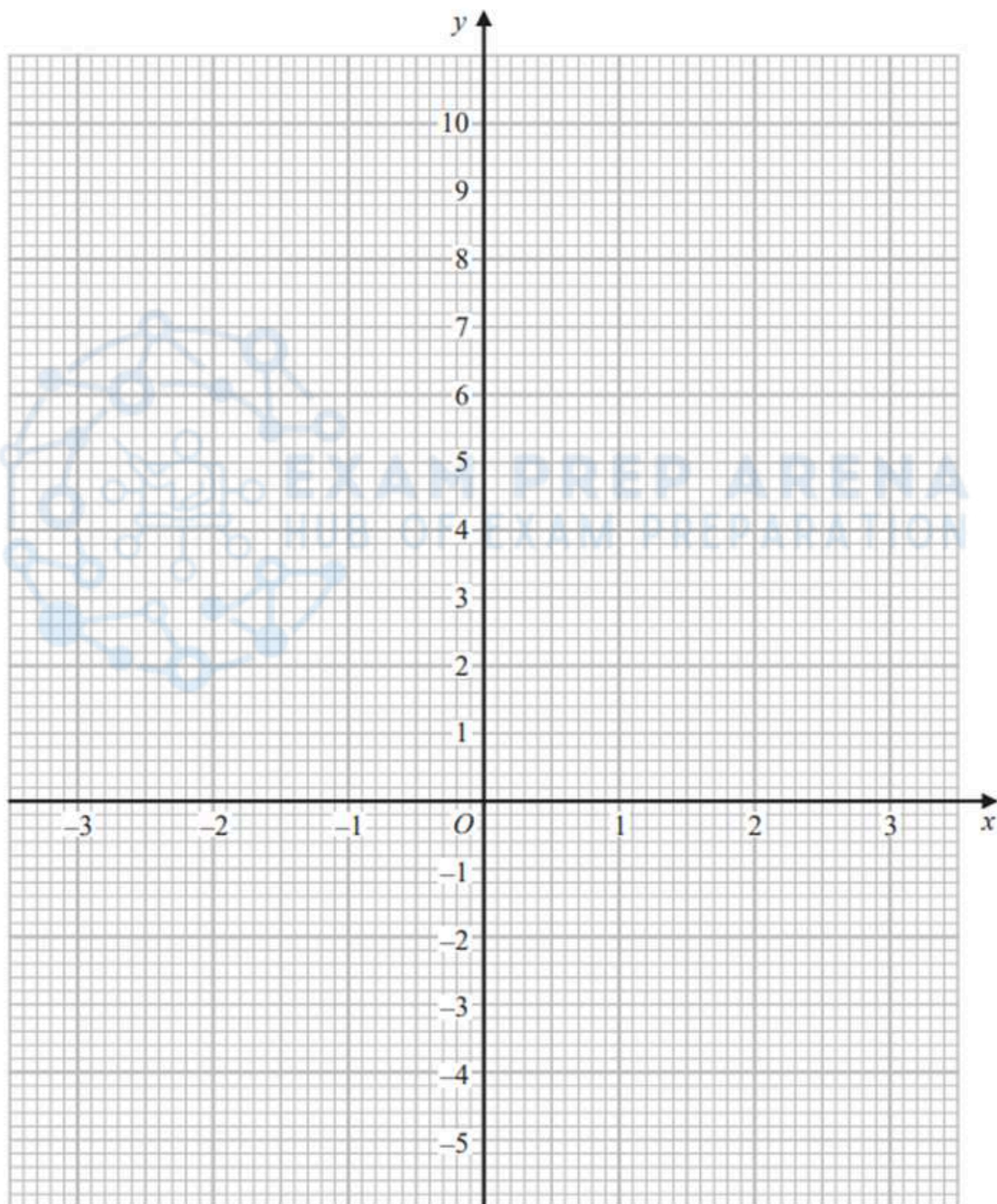
8. June 2023 2H/Q4

(a) Complete the table of values for  $y = x^2 - x - 4$

$x$	-3	-2	-1	0	1	2	3
$y$		2			-4		

(2)

(b) On the grid below, draw the graph of  $y = x^2 - x - 4$  for values of  $x$  from -3 to 3



(2)

(Total for Question 4 is 4 marks)

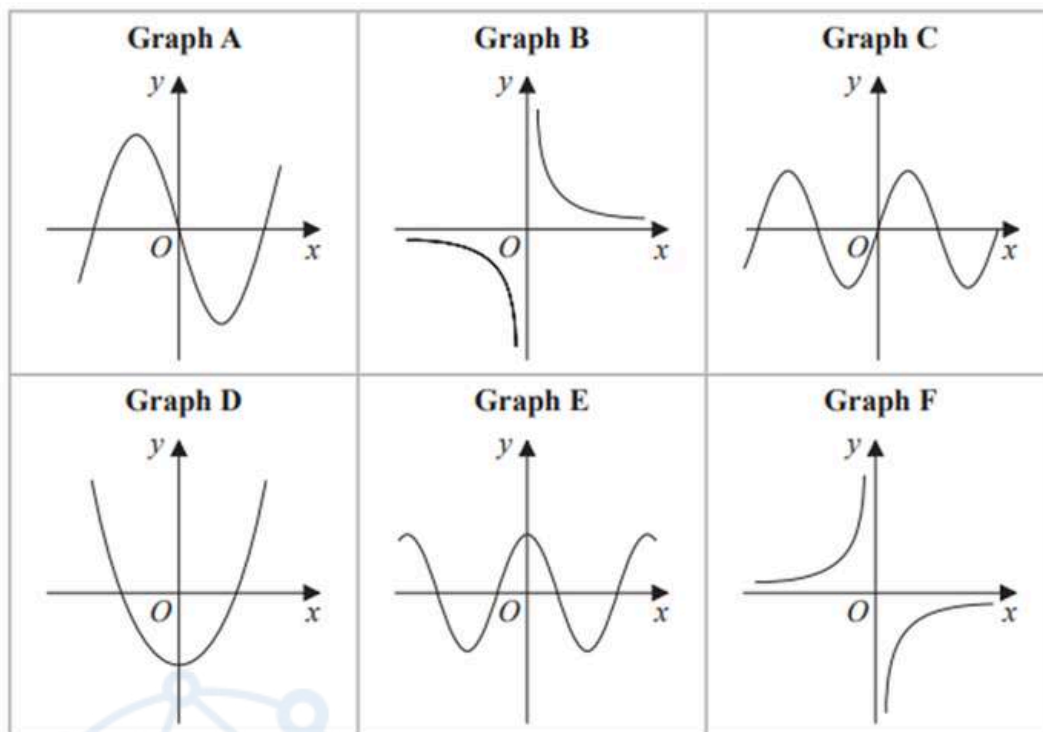


# EDEXCEL IGCSE MATHEMATICS LINEAR 2H & 2HR – GRAPHS OF FUNCTIONS

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9. June 2023 2H/Q18

Here are 6 graphs.



Complete the table below with the letter of the graph that could represent each given equation.

Write your answers on the dotted lines.

Equation	Graph
$y = \sin x$	.....
$y = -\frac{3}{x}$	.....
$y = 4x^3 - 5x$	.....

(Total for Question 18 is 3 marks)

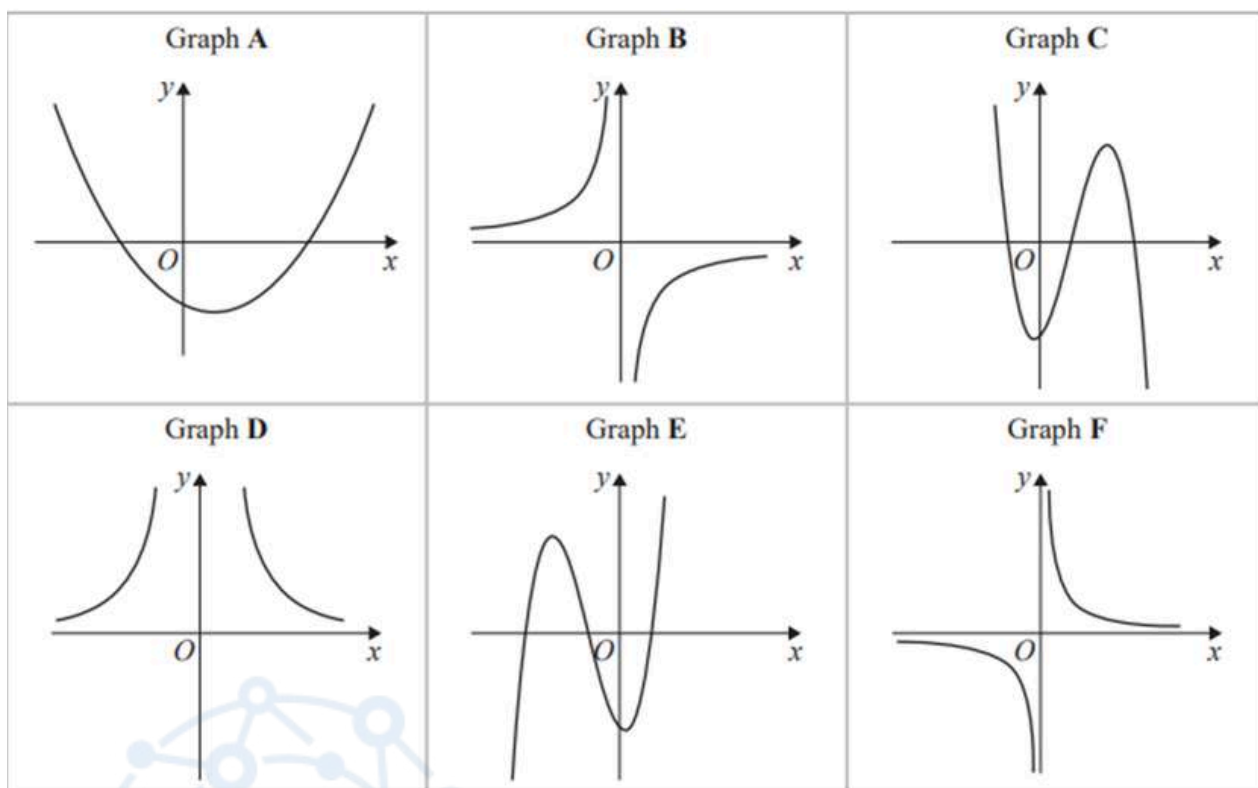


# EDEXCEL IGCSE MATHEMATICS LINEAR 2H & 2HR – GRAPHS OF FUNCTIONS

COMPILED BY SIR MUHAMMAD ABDULLAH SHAH

10. June 2023 2HR/Q12

Here are six graphs.



Write down the letter of the graph of

(a)  $y = \frac{10}{x^2}$

.....  
(1)

(b)  $y = x - 3 + 3x^2 - x^3$

.....  
(1)

(c)  $y = -\frac{3}{x}$

.....  
(1)

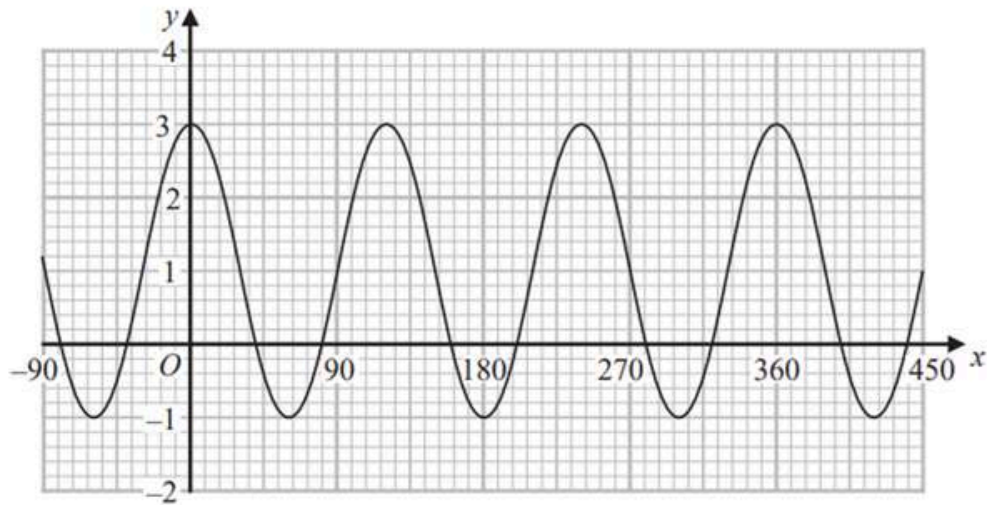
(Total for Question 12 is 3 marks)



EDEXCEL IGCSE MATHEMATICS LINEAR 2H & 2HR – GRAPHS OF FUNCTIONS  
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11. June 2023 2HR/Q26

Here is a sketch of the curve with equation  $y = a \cos bx^\circ + c$  where  $-90 \leq x \leq 450$



Find the value of  $a$ , the value of  $b$  and the value of  $c$



EXAM PREP ARENA  
HUB OF EXAM PREPARATION

$a =$  .....

$b =$  .....

$c =$  .....

(Total for Question 26 is 3 marks)

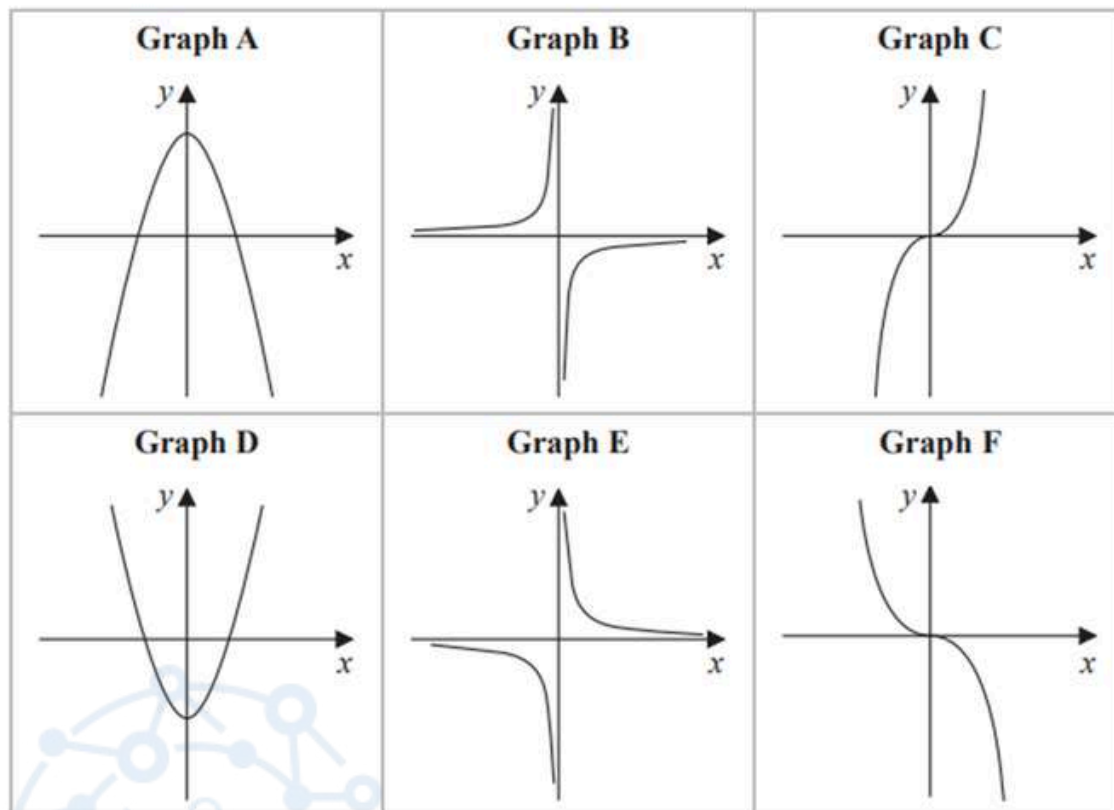


# EDEXCEL IGCSE MATHEMATICS LINEAR 2H & 2HR – GRAPHS OF FUNCTIONS

COMPILED BY SIR MUHAMMAD ABDULLAH SHAH

12. Jan 2023 2H/Q11

Here are six graphs.



Complete the table below with the letter of the graph that could represent each given equation.

Write your answers on the dotted lines.

Equation	Graph
$y = -\frac{2}{x}$	.....
$y = 5 - x^2$	.....
$y = -2x^3$	.....

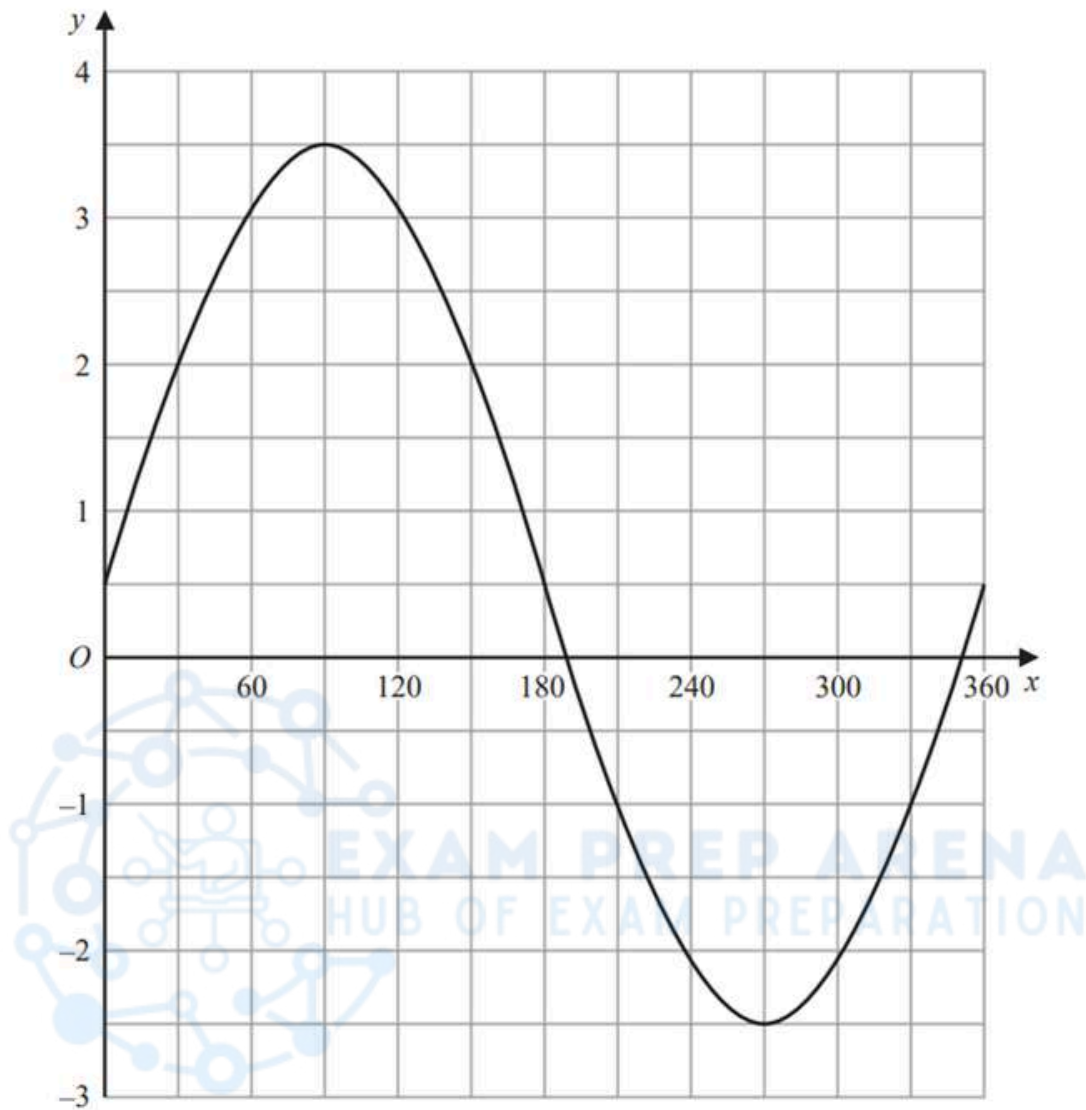
(Total for Question 11 is 3 marks)



EDEXCEL IGCSE MATHEMATICS LINEAR 2H & 2HR – GRAPHS OF FUNCTIONS  
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13. Jan 2023 2H/Q24

The graph of  $y = a \sin x^\circ + b$  is drawn on the grid.



Find the value of  $a$  and the value of  $b$

$a = \dots\dots\dots$

$b = \dots\dots\dots$

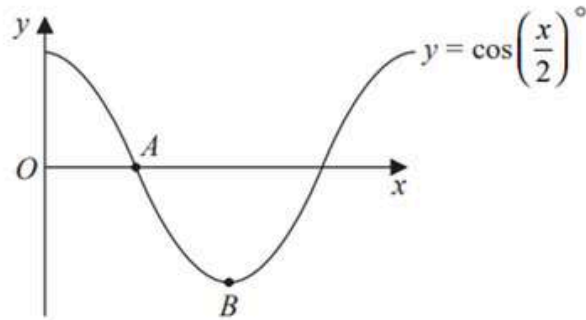
(Total for Question 24 is 2 marks)



EDEXCEL IGCSE MATHEMATICS LINEAR 2H & 2HR – GRAPHS OF FUNCTIONS  
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14. June 2022 2H/Q23

The diagram shows a sketch of the graph of  $y = \cos\left(\frac{x}{2}\right)^\circ$



(i) Find the coordinates of the point  $A$

(....., .....)  
(1)

(ii) Find the coordinates of the point  $B$

(....., .....)  
(1)

(Total for Question 23 is 2 marks)

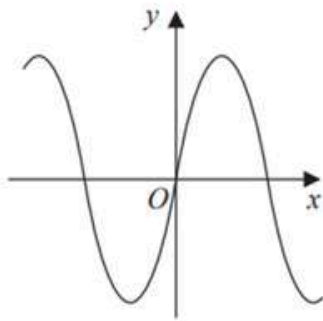


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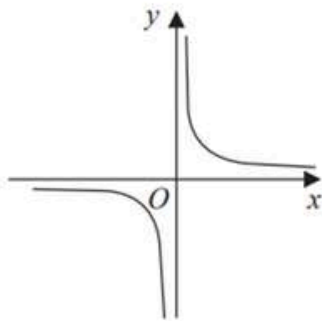
15. June 2022 2HR/Q16

Here are nine graphs.

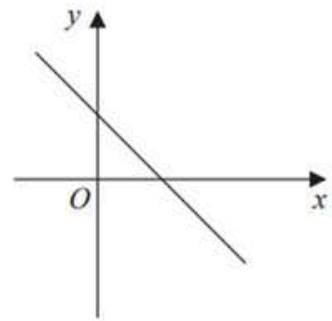
Graph A



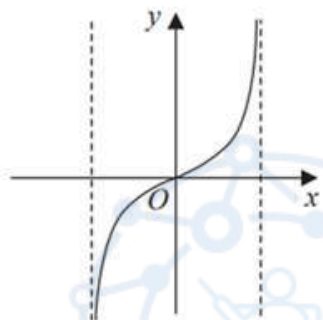
Graph B



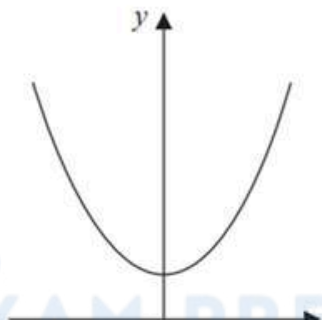
Graph C



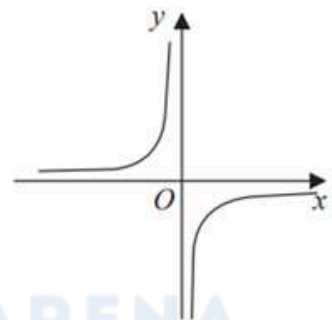
Graph D



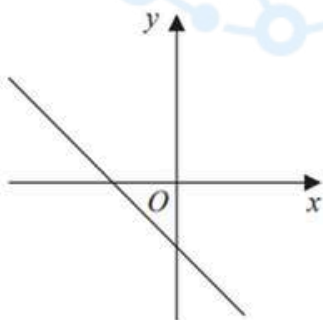
Graph E



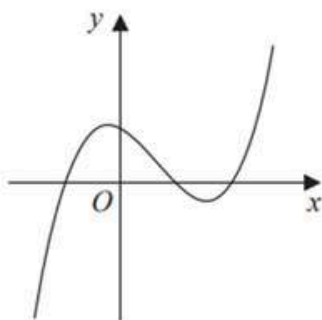
Graph F



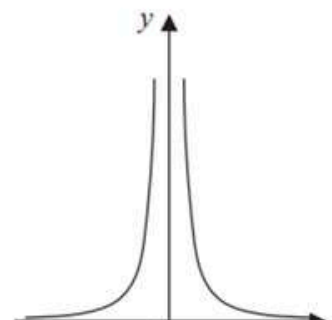
Graph G



Graph H



Graph I



**EDEXCEL IGCSE MATHEMATICS LINEAR 2H & 2HR – GRAPHS OF FUNCTIONS**  
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Complete the table below with the letter of the graph that could represent each given equation.  
 Write each answer on the dotted line.

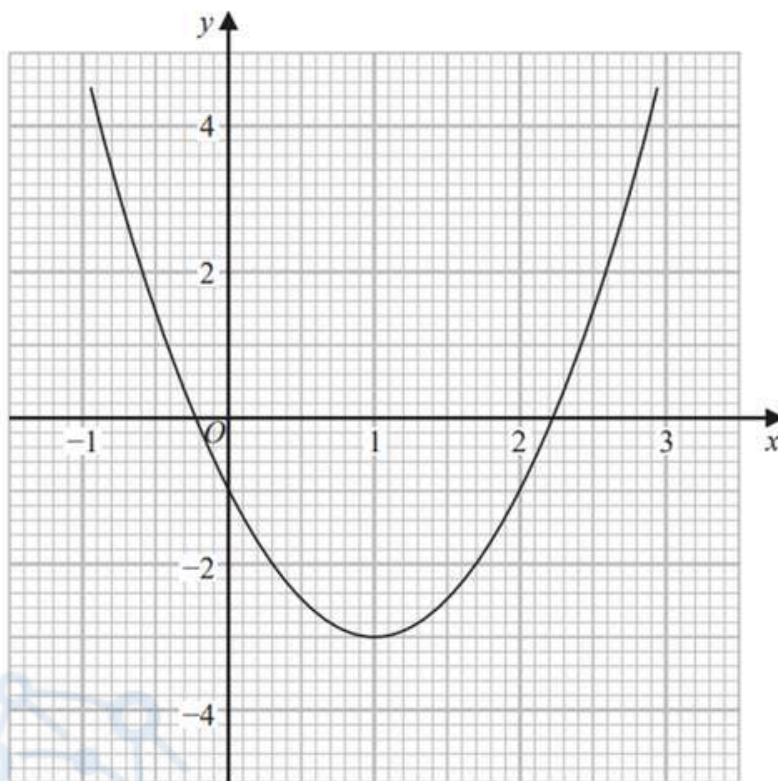
Equation	Graph
$y = -2x + 3$	.....
$y = -\frac{1}{x}$	.....
$y = \tan x^\circ$	.....
$y = (x + 1)(x - 1)(x - 2)$	.....

**(Total for Question 16 is 3 marks)**



16. Jan 2022 2H/Q21

Part of the graph of  $y = 2x^2 - 4x - 1$  is shown on the grid.



- (a) Use the graph to find estimates for the solutions of the equation  $2x^2 - 4x - 1 = 0$   
Give your solutions correct to one decimal place.

.....  
(2)

- (b) By drawing a suitable straight line on the grid, find estimates for the solutions of the equation  $x^2 - x - 1 = 0$   
Show your working clearly.  
Give your solutions correct to one decimal place.

.....  
(3)

(Total for Question 21 is 5 marks)



# EDEXCEL IGCSE MATHEMATICS LINEAR 2H & 2HR – GRAPHS OF FUNCTIONS

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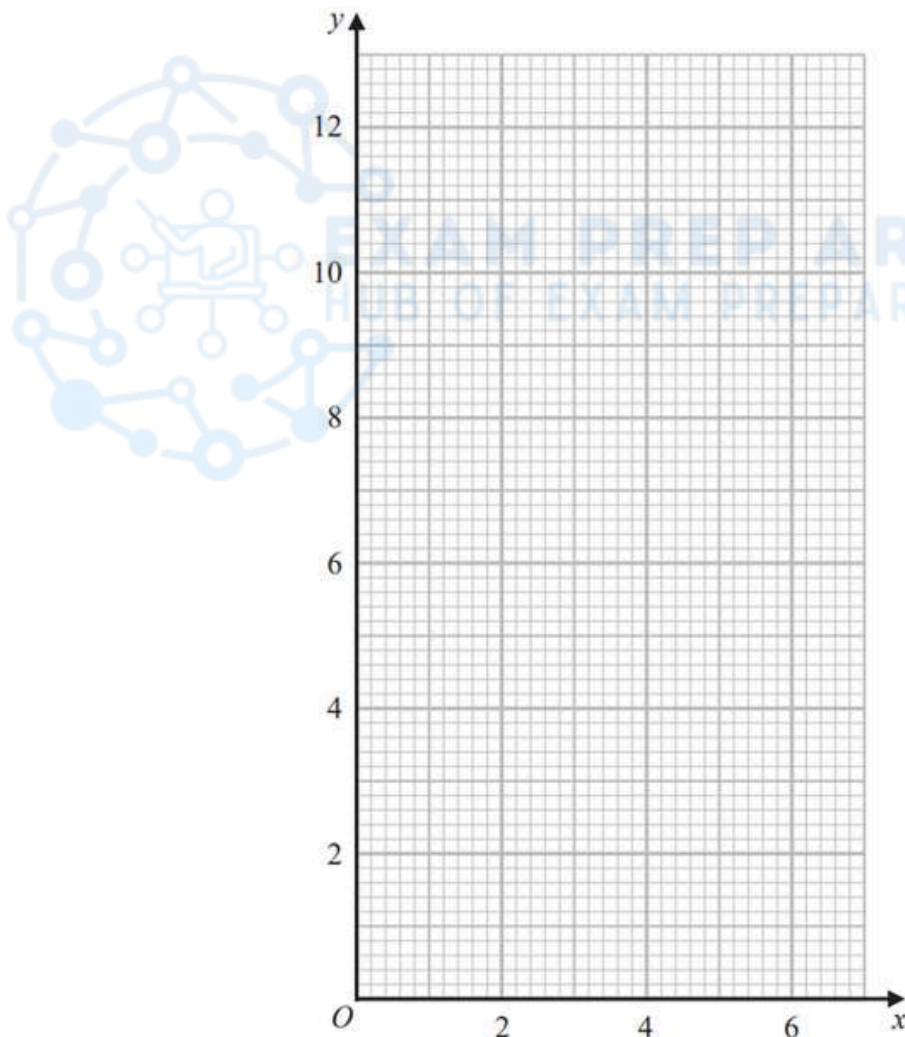
17. Jan 2022 2HR/Q11

(a) Complete the table of values for  $y = \frac{6}{x}$

$x$	0.5	1	2	3	4	5	6
$y$		6		2			1

(2)

(b) On the grid, draw the graph of  $y = \frac{6}{x}$  for  $0.5 \leq x \leq 6$



(2)

(Total for Question 11 is 4 marks)



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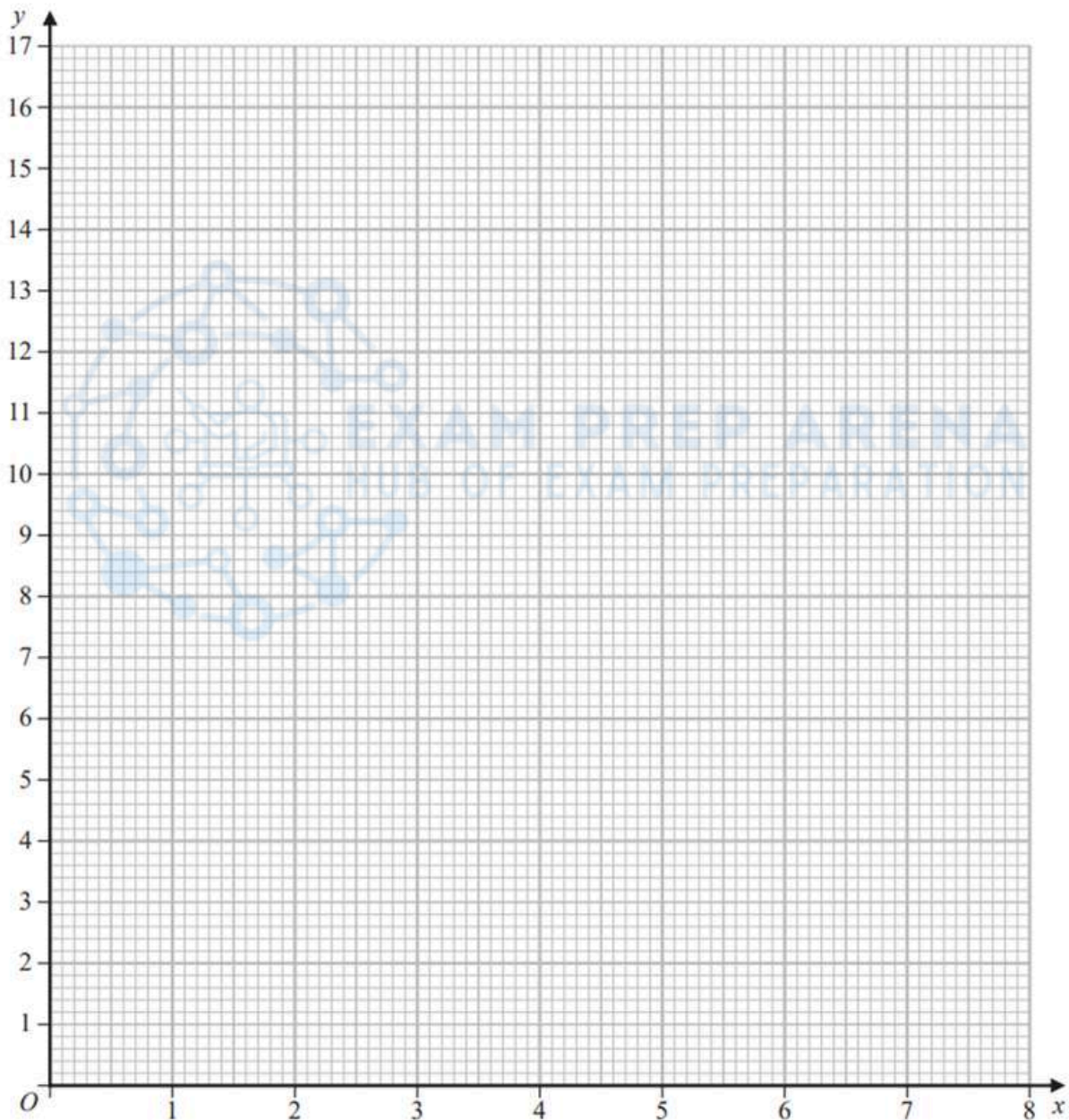
18. May 2021 2H/Q15

(a) Complete the table of values for  $y = \frac{1}{x}(x^2 + 4)$

$x$	0.25	0.5	1	2	4	8
$y$	16.25					8.5

(2)

(b) On the grid, draw the graph of  $y = \frac{1}{x}(x^2 + 4)$  for  $0.25 \leq x \leq 8$



(2)

(Total for Question 15 is 4 marks)



# EDEXCEL IGCSE MATHEMATICS LINEAR 2H & 2HR - GRAPHS OF FUNCTIONS

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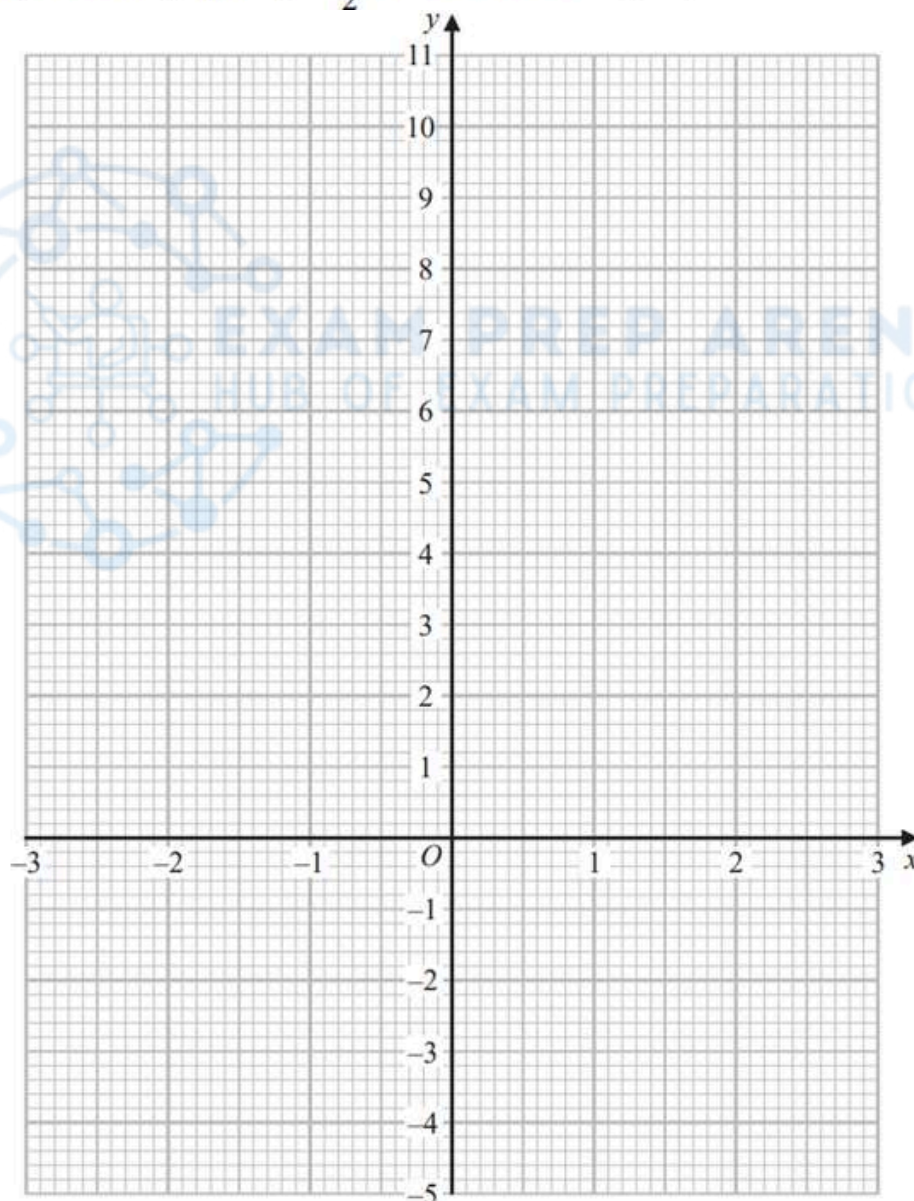
19. Nov 2020 2HR/Q18

(a) Complete the table of values for  $y = \frac{1}{2}x^3 - 2x + 3$

$x$	-3	-2	-1	0	1	2	3
$y$	-4.5			3		3	

(2)

(b) On the grid, draw the graph of  $y = \frac{1}{2}x^3 - 2x + 3$  for  $-3 \leq x \leq 3$



(2)



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- (c) By drawing a suitable straight line on the grid, find an estimate for the solution of the equation  $\frac{1}{2}x^3 - x + 4 = 0$

$x = \dots\dots\dots$   
(2)

(Total for Question 18 is 6 marks)

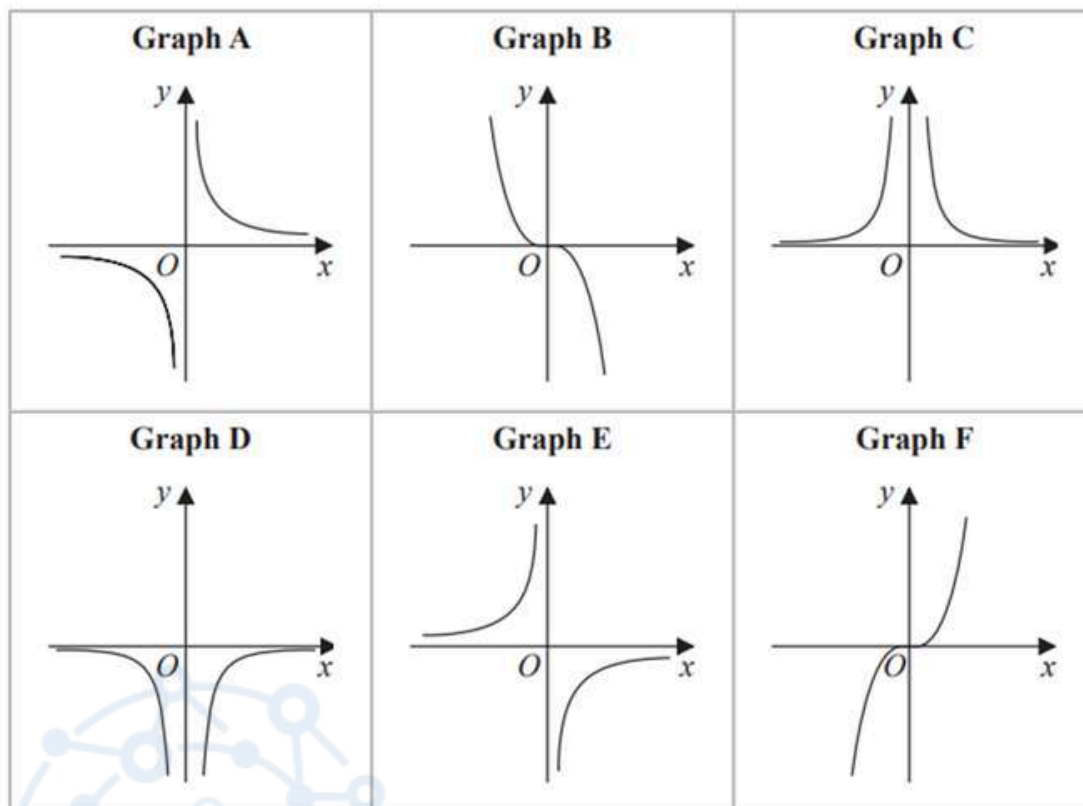


# EDEXCEL IGCSE MATHEMATICS LINEAR 2H & 2HR – GRAPHS OF FUNCTIONS

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20. Jan 2020 2H/Q15

Here are six graphs.



Complete the table below with the letter of the graph that could represent each given equation.

Write your answers on the dotted lines.

Equation	Graph
$y = \frac{2}{x^2}$	.....
$y = -\frac{1}{2}x^3$	.....
$y = -\frac{5}{x}$	.....

(Total for Question 15 is 3 marks)



# EDEXCEL IGCSE MATHEMATICS LINEAR 2H & 2HR – GRAPHS OF FUNCTIONS

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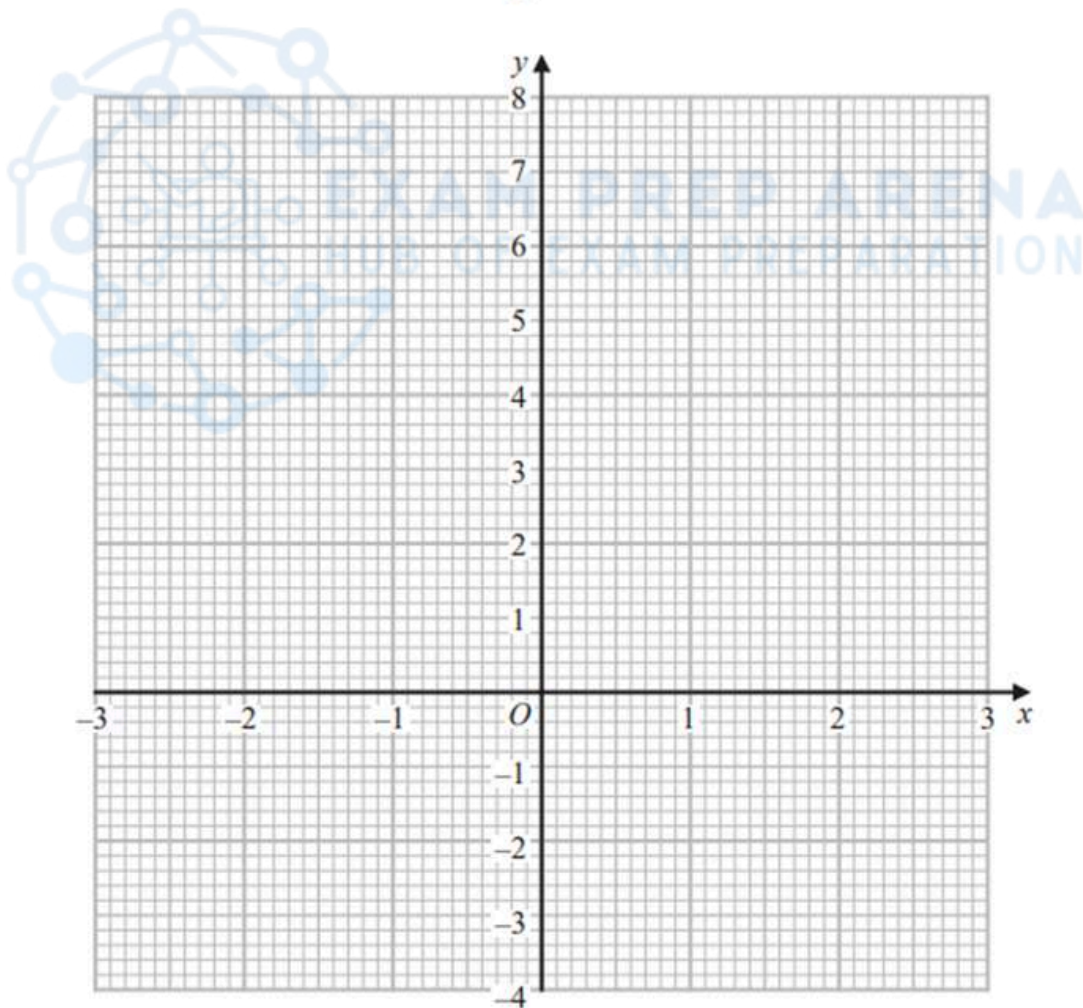
21. Jan 2020 2HR/Q15

(a) Complete the table of values for  $y = x^2 - \frac{x}{2} - 3$

$x$	-3	-2	-1	0	1	2	3
$y$	7.5				-2.5		4.5

(2)

(b) On the grid, draw the graph of  $y = x^2 - \frac{x}{2} - 3$  for values of  $x$  from -3 to 3



(2)

(Total for Question 15 is 4 marks)



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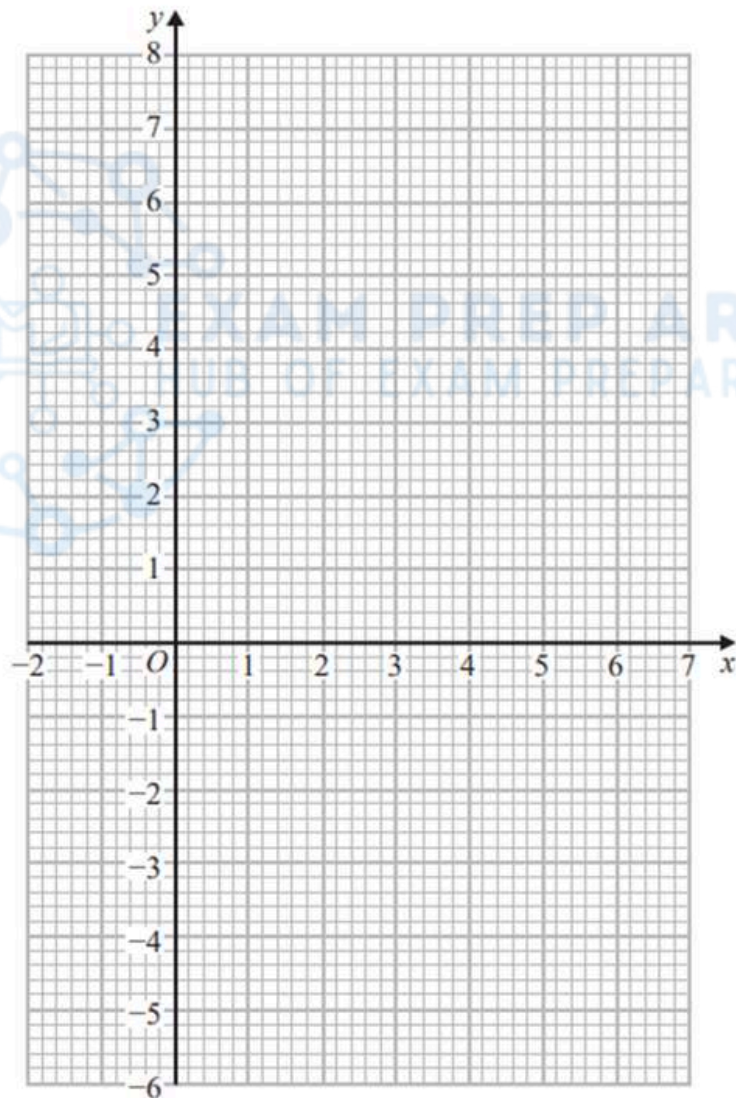
22. June 2019 2HR/Q3

(a) Complete the table of values for  $y = 1 + 5x - x^2$

$x$	-1	0	1	2	3	4	5	6
$y$		1		7	7		1	

(2)

(b) On the grid, draw the graph of  $y = 1 + 5x - x^2$  for values of  $x$  from -1 to 6



(2)

(Total for Question 3 is 4 marks)



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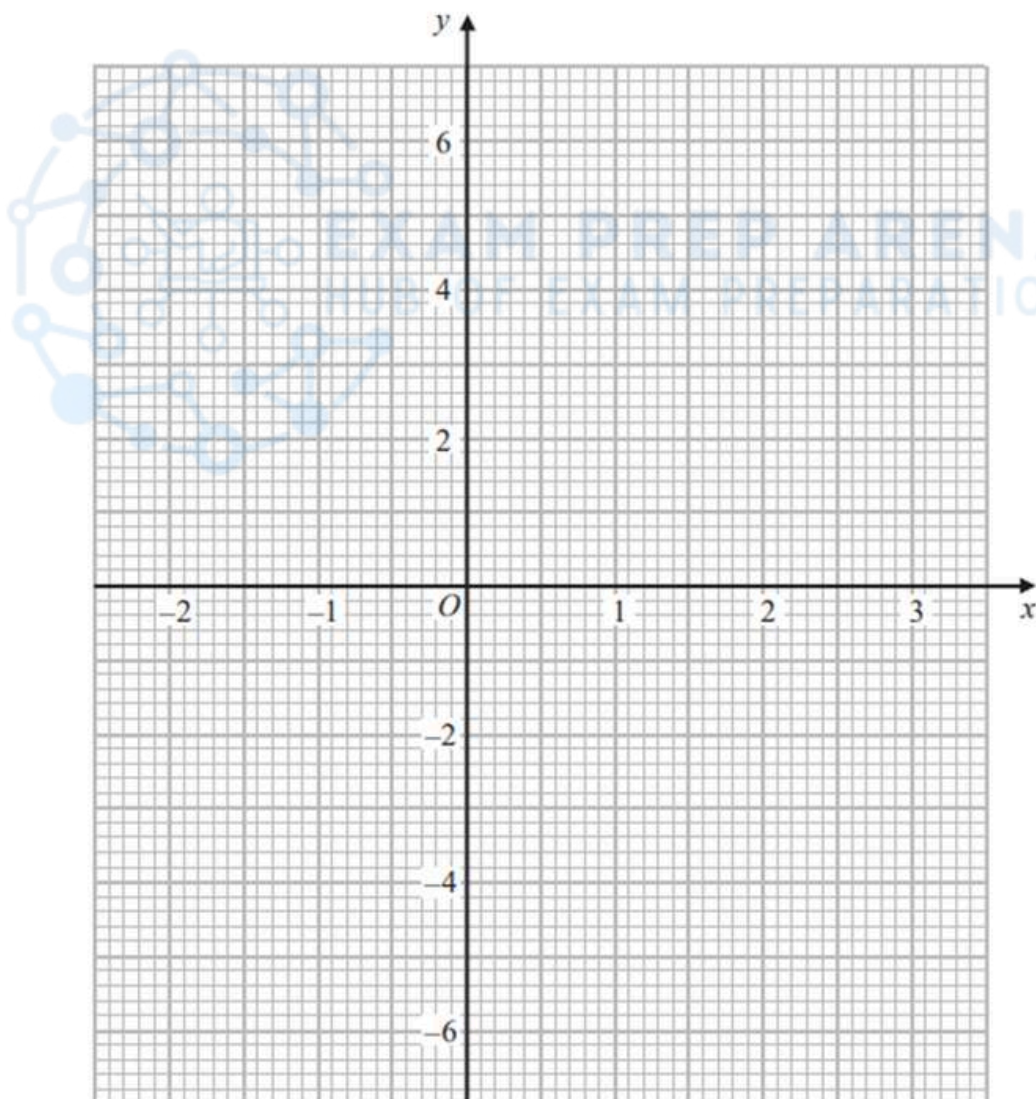
23. June 2018 2H/Q14

(a) Complete the table of values for  $y = x^3 - 2x^2 - 3x + 4$

$x$	-2	-1	-0.5	0	1	1.5	2	3
$y$			4.875	4		-1.625		

(2)

(b) On the grid, draw the graph of  $y = x^3 - 2x^2 - 3x + 4$  for values of  $x$  from -2 to 3



(2)



EDEXCEL IGCSE MATHEMATICS LINEAR 2H & 2HR – GRAPHS OF FUNCTIONS  
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- (c) By drawing a suitable straight line on the grid,  
find estimates for the solutions of the equation  $x^3 - 2x^2 - x + 1 = 0$   
Give your solutions correct to 1 decimal place.

.....  
(4)

**(Total for Question 14 is 8 marks)**

EXAM PREP ARENA  
HUB OF EXAM PREPARATION

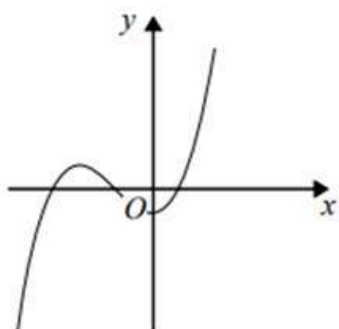


# EDEXCEL IGCSE MATHEMATICS LINEAR 2H & 2HR – GRAPHS OF FUNCTIONS

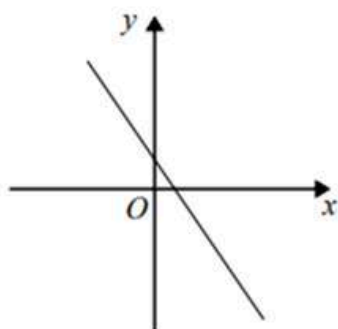
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## 24. Sample 2018 2H/Q19

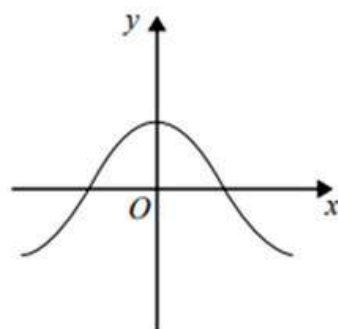
Here are nine graphs.



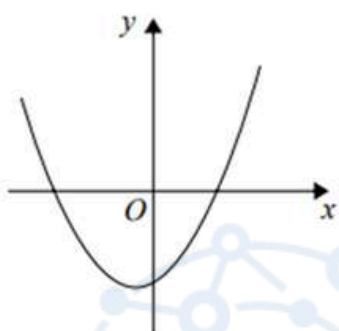
Graph A



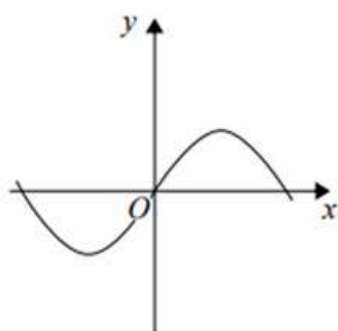
Graph B



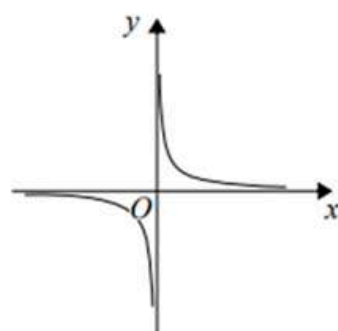
Graph C



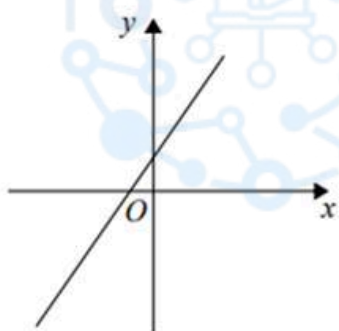
Graph D



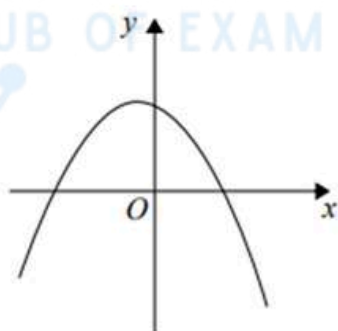
Graph E



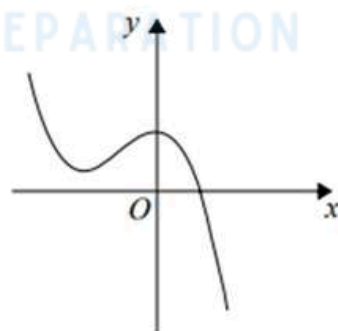
Graph F



Graph G



Graph H



Graph I

Complete the table below with the letter of the graph that could represent each given equation.

Equation	Graph
$y = \sin x$	
$y = 2 - 3x$	
$y = x^2 + x - 6$	
$y = x^3 + 3x^2 - 2$	

(Total for Question 19 is 3 marks)

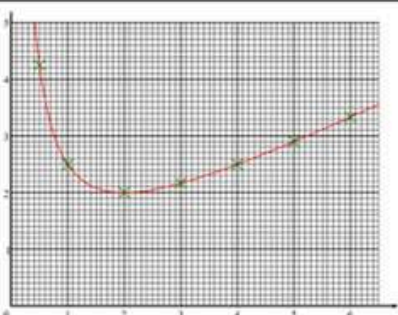


# EDEXCEL IGCSE MATHEMATICS LINEAR 2H & 2HR – GRAPHS OF FUNCTIONS

## COMPILED BY SIR MUHAMMAD ABDULLAH SHAH

### MARKING SCHEME

#### 1. Nov 2025 2H/Q12

12	(a)	<table border="1" style="margin: auto;"> <tr> <td style="padding: 2px;">1</td> <td style="padding: 2px;">2</td> </tr> <tr> <td style="padding: 2px;">2.5</td> <td style="padding: 2px;">2</td> </tr> </table>	1	2	2.5	2	2.5 and 2	1	B1 oe eg $\frac{5}{2}$
1	2								
2.5	2								
	(b)			2	M1 fit their table for at least 6 points plotted correctly (tolerance within or on the circles on the overlay)				
			Correct graph		A1 for a fully correct graph – points plotted correctly (within or on the circles on the overlay) and intention to join with a smooth curve (be generous if intention is clearly a smooth curve through all points)  Ignore curve drawn for $x < 0.5$ and $x > 6$  Note: If a fully correct graph is shown, but an incomplete table is shown in (a), then award the mark for (a)				
	(c)			2	M1 fit for a line drawn at $y = 3$ or an indication on the curve at $y = 3$ eg dot or cross etc or $\frac{1}{2}\left(x + \frac{4}{x}\right) = 3$ stated or $y = 3$ stated				
		<i>Working required</i>	0.8 and 5.2		A1 fit dep on previous M1 for 0.7 – 0.8 and 5.1 – 5.3 or fit graph with 2 points of intersection with $y = 3$				
					<b>Total 5 marks</b>				

#### 2. June 2025 2H/Q14

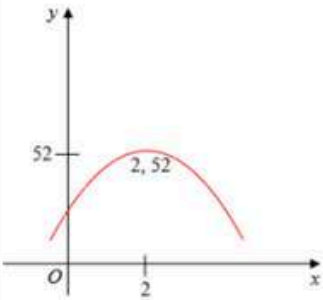
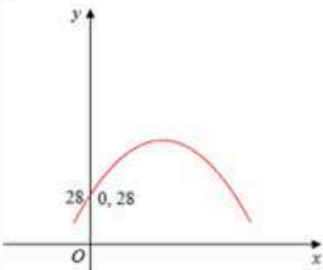
Question	Working	Answer	Mark	Notes
14 (a)		B	1	B1 cao
(b)		C	1	B1 cao
				<b>Total 2 marks</b>

#### 3. June 2025 2H/Q25

Question	Working	Answer	Mark	Notes
25 (a)	$\pm 6\left(x \pm \frac{4}{2}\right)^2 \dots$ or $\pm 6(x \pm 2)^2 \dots$ or $\pm 6\left[\left(x \pm 2\right)^2 \dots\right]$ or $\pm 6\left[\left(x \pm \frac{4}{2}\right)^2 \dots\right]$ or $\pm 6\left(x \pm \frac{24}{2 \times -6}\right)^2 \dots$		3	M1 for a start to completing the square or correct substitution into $a\left(x + \frac{b}{2a}\right)^2 + \dots$ from the formula $a\left(x + \frac{b}{2a}\right)^2 - \frac{(b)^2}{4a} + c$
	$-6\left[\left(x - \frac{4}{2}\right)^2 - \left(\frac{4}{2}\right)^2\right] \dots$ or $-6[(x-2)^2 - 2^2] \dots$ or $-6\left[\left(x - \frac{4}{2}\right)^2 - \left(\frac{4}{2}\right)^2\right] \dots$ or $-6[(x-2)^2 - 2^2] \dots$ or $-6\left(x + \frac{24}{2 \times -6}\right)^2 - \frac{24^2}{4 \times -6} \dots$			M1 for correctly completing the square but terms do not need to be simplified and 28 may or may not be present or correct simplification of the first two parts of $a\left(x + \frac{b}{2a}\right)^2 - \frac{(b)^2}{4a} + c$ <b>NB: Please refer to ALT mark scheme after (b) for comparison of coefficients method</b>
	<i>Working not required, so correct answer scores full marks (unless from obvious incorrect working)</i>	$52 - 6(x - 2)^2$		A1 oe eg $-6(x - 2)^2 + 52$
25(a) ALT	$-bx^2 + 2bcx - bc^2 + a$ and $b = 6$ or $b = -6$		3	M1 for multiplying out $a - b(x - c)^2$ and $b = 6$ or $b = -6$
	$2bc = 24$ or $-bc^2 + a = 28$			M1 for equating coefficients
	<i>Working not required, so correct answer scores full marks (unless from obvious incorrect working)</i>	$52 - 6(x - 2)^2$		A1 oe eg $-6(x - 2)^2 + 52$



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(b)		'∩' or 'U' shaped symmetrical quadratic curve	3	B1	for drawing a '∩' or 'U' shaped symmetrical quadratic curve with the turning point in any quadrant
		Turning point marked as (2, 52)		B1	for drawing a '∩' shaped symmetrical quadratic curve in the correct quadrant with a turning point at (2, 52)
		Intersection with y-axis marked as (0, 28) or crossing at 28 marked		B1	for drawing a '∩' shaped symmetrical quadratic curve in the correct quadrant with an intersection on the y-axis marked as (0, 28) or marked as 28 on the y-axis
<b>Total 6 marks</b>					

4. June 2025 2HR/Q25

25		$a = 3$ $b = 45$ $c = 1$ <b>OR</b> $a = -3$ $b = 225$ $c = 1$	3	B1	for $a = 3$ or $a = -3$ B1 for $a > 0$ and $b = 45$ or for $a < 0$ and $b = 225$ if no answer for $a$ is seen allow this mark for $b = 45$ B1 for $c = 1$ Allow correct alternative angles for the value of $b$ , eg 45 or $-315$ , 225 or $-135$
<b>Total 3 marks</b>					

5. June 2024 2H/Q25

25	(i)		(30, 2)	1	B1	cao
	(ii)		(300, 0)	1	B1	cao
<b>Total 2 marks</b>						

6. June 2024 2HR/Q16

16	(i)			E	1	B1
	(ii)			A	1	B1
<b>Total 2 marks</b>						

7. Nov 2023 2H/Q14

Question	Working	Answer	Mark	Notes
14	For drawing the line $y - x - 2 = 0$ ( $y = x + 2$ ) Goes through $(-2, 0)$ $(-1, 1)$ $(0, 2)$ $(1, 3)$ $(2, 4)$ etc		3	M1 At least long enough for the intercept with the other line and to clearly see that it is the correct line
	This question is testing use of graphs to solve simultaneous equations H2.6B Therefore please ignore any algebraic methods to solve the equations.	$x = -1$ $y = 1$		A2 for both values correct, dep on M1 (A1 dep on M1 for one correct value or both values the wrong way round, ) [if more than one line is drawn, one of which is correct, and the correct coordinates given, please given credit]
<b>Total 3 marks</b>				



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8. June 2023 2H/Q48

4	(a)	$x$	-3	-2	-1	0	1	2	3	2	B2 for all correct values, otherwise B1 for 3 or 4 correct values
		$y$	8	2	-2	-4	-4	-2	2		
	(b)								2	M1 dep on B1 scored in (a) for at least 5 points plotted correctly (fit their table)	
		correct curve								A1 for a fully correct curve (all coordinates correct and correctly plotted and joined with a curve and curved between (0, -4) and (1, -4))	
<b>Total 4 marks</b>											

9. June 2023 2H/Q18

18		C	3	B1 check diagrams
		F		B1 check diagrams
		A		B1 check diagrams
<b>Total 3 marks</b>				

10. June 2023 2HR/Q12

12	(a)		D	1	B1 allow d
	(b)		C	1	B1 allow c
	(c)		B	1	B1 allow b
<b>Total 3 marks</b>					

11. June 2023 2HR/Q26

26	(a)	23 (i)	(180, 0)	1	B1	Total 2 marks
	(b)	(ii)	(360, -1)	1	B1	
	(c)			1	B1 cao	<b>Total 3 marks</b>

12. Jan 2023 2H/Q11

Question	Working	Answer	Mark	Notes
11		B	3	B1
		A		B1
		F		B1
<b>Total 3 marks</b>				

13. Jan 2023 2H/Q24

Q	Working	Answer	Mark	Notes
24		3	2	B1
		0.5		B1 oe
<b>Total 2 marks</b>				

14. June 2022 2H/Q23

23	(i)	(180, 0)	1	B1
	(ii)	(360, -1)	1	B1
<b>Total 2 marks</b>				

15. June 2022 2HR/Q16

16		C, F, D, H	3	B3 for all 4 correct (B2 for 2 or 3 correct) (B1 for 1 correct)
<b>Total 3 marks</b>				



# EDEXCEL IGCSE MATHEMATICS LINEAR 2H & 2HR – GRAPHS OF FUNCTIONS

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16. Jan 2022 2H/Q21

21	(a)		-0.2 and 2.2	2	B2 Both correct to 1 decimal place  (B1 for (-0.2, 0), (2.2, 0) <b>or</b> a single correct value to 1 decimal place <b>or</b> both values within -0.2 to -0.23 and 2.2 to 2.23)
	(b)	$(y =) -2x + 1$ oe seen		3	M1 Written – could be label on graph
		$y = -2x + 1$ drawn			M1 dep on previous M1 for drawing $y = -2x + 1$ passing through (-1, 3) and (2, -3) (allow 1 square tolerance)
			-0.6 and 1.6		A1 dep on M2 for both answers to 1 decimal place
					<b>Total 5 marks</b>

17. Jan 2022 2HR/Q11

11	(a)	<table border="1" style="display: inline-table;"> <tr> <td>x</td> <td>0.5</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> </tr> <tr> <td>y</td> <td>12</td> <td>6</td> <td>3</td> <td>2</td> <td>1.5</td> <td>1.2</td> <td>1</td> </tr> </table>	x	0.5	1	2	3	4	5	6	y	12	6	3	2	1.5	1.2	1	Correct table	2	B2 for all 4 correct values oe (ie $\frac{6}{5}$ or $\frac{3}{2}$ )  (B1 for 2 or 3 correct values)
x	0.5	1	2	3	4	5	6														
y	12	6	3	2	1.5	1.2	1														
	(b)		Correct graph 7 points joined by a smooth curve.	2	M1ft (dep B1 in (a)) for 6 or 7 points plotted correctly using their values (within the circles on overlay). May be implied by curve passing through correct point.  A1ft only allow one incorrect value from the table in (a), and for a curve that is decreasing throughout for $x = 0.5$ to $x = 6$ .  Ignore graph to the right of (6, 1) and to the left of (0.5, 12)																
					<b>Total 4 marks</b>																



EDEXCEL IGCSE MATHEMATICS LINEAR 2H & 2HR – GRAPHS OF FUNCTIONS  
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18. May 2021 2H/Q15

Question	Working	Answer	Mark	Notes
15 (a)		8.5, 5, 4, 5	2	B2 all 4 correct (allow eg 5.0 for 5)  (B1 for 2 or 3 correct)
(b)				M1 fit their table dep on B1 scored in (a) for 5 or 6 points plotted correctly (tolerance 1 small square)
		fully correct graph	2	A1 A fully correct graph – correct points plotted correctly (within tolerance of 1 small square) and intention to join with a smooth curve (be generous if intention is clearly a smooth curve through all points)
				NB: If a student has nothing in the table for part (a) but draws a fully correct graph in part (b) award the marks in part (a)
				<b>Total 4 marks</b>

19. Nov 2020 2HR/Q18

18 (a)		(-4.5) 3 4.5 (3) 1.5 (3) 10.5	2	B2 for all correct (B1 for any two correct) No points in table but correctly plotted on grid, award mark
(b)	(-3, -4.5) (-2,3) (-1,4.5) (0,3) (1,1.5) (2,3) (3,10.5)	Smooth curve	2	B2 for a correct smooth curve. Points or curve passing through correct values within half a small square. (B1 for at least 5 points plotted correctly; fit from table for plotting only provided B1 awarded in part (a))
(c)			2	M1 for drawing $y = -x - 1$ with two correct points plotted and intersection with curve. or for stating $y = -x - 1$  or for $\frac{1}{2}x^3 - 2x + 3 = -x - 1$ seen
		-2.3 to -2.4		A1 fit their curve dep on M1 and line $y = -x - 1$ drawn
				<b>Total 6 marks</b>

20. Jan 2020 2H/Q15

15		C, B, E	3	B3 for all 3 correct (B2 for 2 correct) (B1 for 1 correct)
				<b>Total 3 marks</b>

21. Jan 2020 2HR/Q15

15 (a)		2, -1.5, -3, 0	2	B2 B1 for 2 or 3 values correct
(b)			2	M1ft At least 5 points plotted correctly fit from table dep on B1 in part (a)
				A1 For correct smooth curve.
				<b>Total 4 marks</b>

22. June 2019 2HR/Q3

Question	Working	Answer	Mark	Notes
3 (a)		-5, 5, 5, -5	2	B2 All 4 correct values If not B2 then B1 for 2 or 3 correct values
(b)		Fully correct curve	2	M1 Plotting at least 6 points correctly from their table dep on B1 in part(a) A1 Do not accept horizontal line at top of curve or straight line segments
				<b>Total 4 marks</b>



EDEXCEL IGCSE MATHEMATICS LINEAR 2H & 2HR – GRAPHS OF FUNCTIONS  
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23. June 2018 2H/Q14

Question	Working	Answer	Mark	Notes
14 (a)		-6, 4, 0, -2, 4	2	B2 Award B1 for 2, 3 or 4 correct.
(b)		correct curve	2	B2 For correct smooth curve. If B2 not awarded, award B1 for at least 5 points plotted correctly ft from table dep on B1 or B2 in (a) (plots $\pm 1$ sq)
(c)	$x^3 - 2x^2 - 3x + 4 = -2x + 3$		4	M1
	Plot $y = -2x + 3$			M1 Sufficient to cross curve at least once.
	-0.8 or 0.6 or 2.2			A1 Any one correct x value at intersection of graphs (or one or more points given as coordinates) ft dep on second M1 (Award even if curve in (a) is incorrect)
		-0.8 0.6 2.2		A1 Accept -0.9 to -0.7 Accept 0.4 to 0.7 Accept 2.1 to 2.4 (not coordinates) ft ( $\pm 1$ square) dep on second M1 must be 3 values
				SC B2 for all correct solutions from graph of $y = x^3 - 2x^2 - x + 1$
				<b>Total 8 marks</b>

24. Sample 2018 2H/Q19

Question	Working	Answer	Mark	AO	Notes
19		E, B, D, A	3	AO1	B3 All correct B2 for 3 correct B1 for 2 correct

