

Delta 2

Unit 10 Review (Non-Calculator)

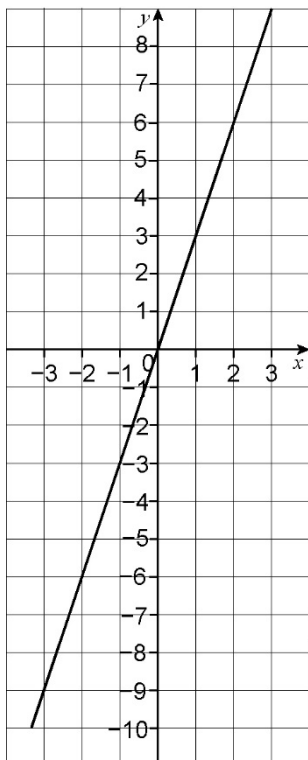
Graphs

How well did you do:

Graphs	Score = $\frac{\quad}{44}$	
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Topics/skills which need to be revisited:	Questions from the review	Further practice from Delta 2
Plot the graphs of linear functions in the form $y = mx + c$ and recognise and compare their features	1b,c 6,8	P241 Q1,2
Know for a straight line $y = mx + c$, m is the gradient and $m = (\text{change in } y)/(\text{change in } x)$	1a, 4a,7a	P242 Q5,6
- Know and use $y = mx + c$ for any straight line - Be able to work out when a point is on a line	3, 4bc 5	- P242 Q9 - P242 Q7,8
- Recognise that any line parallel to a given line will have the same gradient - Know that a line perpendicular to the line $y = mx + c$, will have a gradient of $-1/m$	7a 3c, 7b,8c	- P243 Q10 - P234 Q9,10
Find inverse functions	2 ,6cd	P244 Q1,2,3

- 1 a What is the gradient of the line drawn on the graph?



- b Complete the table of values for the graph of $y = 3x - 2$

x	-2	-1	0	1	2	3
y		-5			4	

- c Draw the graph on the grid above.
d What do you notice about the two lines?

(7 marks)

- 2 Find the inverses of these functions.

a $x \rightarrow 7x - 2$

b $x \rightarrow 3(x + 1)$

c $x \rightarrow \frac{x-5}{2}$

(6 marks)

3 a Draw lines to match the statements on the left with an equation on the right.

A	not a straight line	$y = x - 4$	i
B	y intercept = -4	$y = 6 - \frac{1}{2}x$	ii
C	gradient = 2	$y = 2x - 3$	iii
D	gradient = $-\frac{1}{2}$	$y = x^2 + 2$	iv
E	y intercept = 0	$y = 3x$	v

b Which of the above lines (i - v) is parallel to $y = 2x - 4$?

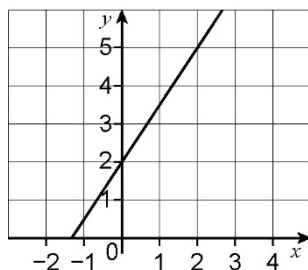
c Which two of the above lines are perpendicular?

Explain how you know.

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(6 marks)

4 a Find the gradient of the line drawn on the grid. Show your method.



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b Find the y -intercept of this line?

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c Write the equation of this line?

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(4 marks)

- 5 Does the point (4, 47) lie on the line $y = 10x - 3$?

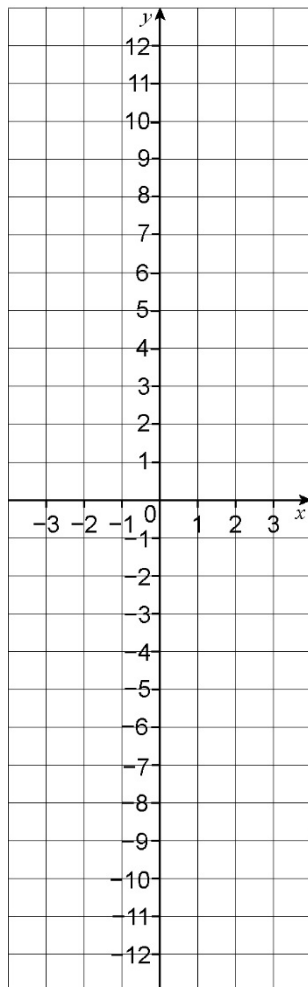
Show your working.

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(2 marks)

- 6 a Complete these coordinates for the line with equation $y = -2x - 2$

(0,) and (, 0)

- b Draw the line on the grid and label it.



- c What is the equation of the inverse function?

- d Draw the graph of the inverse function.

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(8 marks)

7 Two points (7, 2) and (-3, -3) are connected by a straight line.

a Work out the gradient of the line

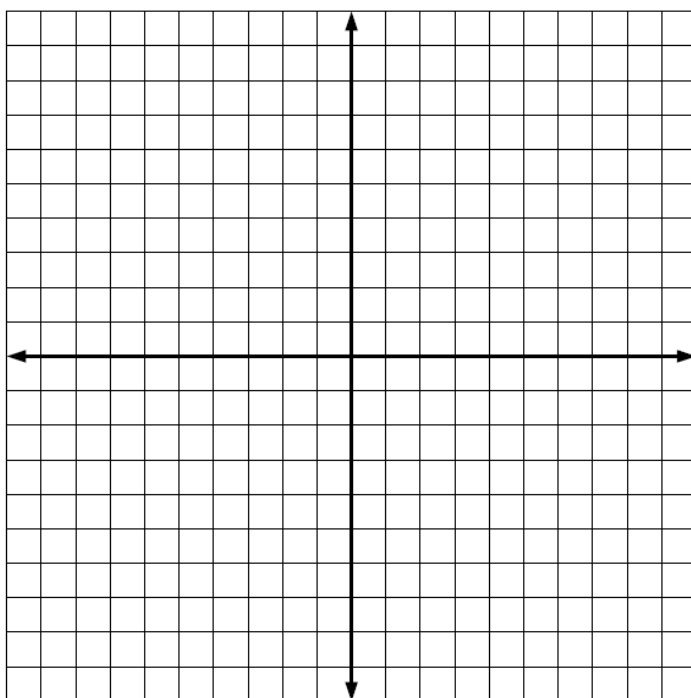
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b Work out the gradient of a line which is perpendicular

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(4 marks)

8 a On the axis below, draw the line $2x + 3y = 6$. Make sure you label your axis clearly.



b Draw **any** line which is perpendicular to this on the same axis

c What is the gradient of the line you have drawn?

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(7 marks)

[End of Review]