Name:

Exam Style Questions

Gradient

Corbettmaths

Equipment needed: Calculator, pen

Guidance

1. Read each question carefully before you begin answering it.
2. Check your answers seem right.
3. Always show your workings

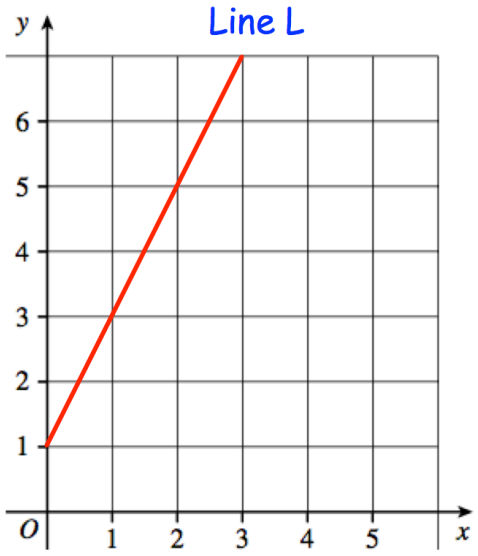
Video Tutorial

www.corbettmaths.com/contents

Videos 189, 190

Answers and Video Solutions

1.



Line L is drawn on the grid.

Work out the gradient of Line L.

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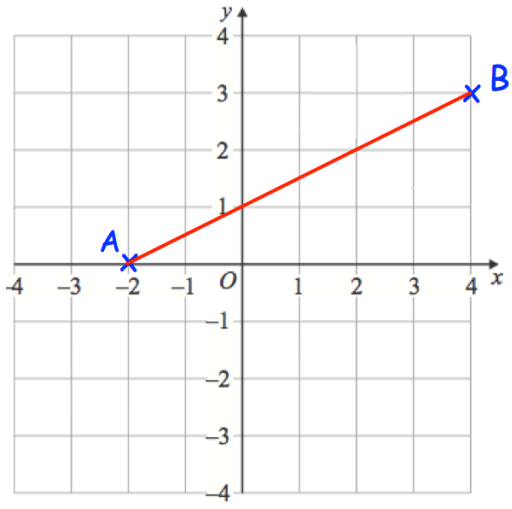
(2)

2.



AB is drawn on the grid.

Work out the gradient of AB.

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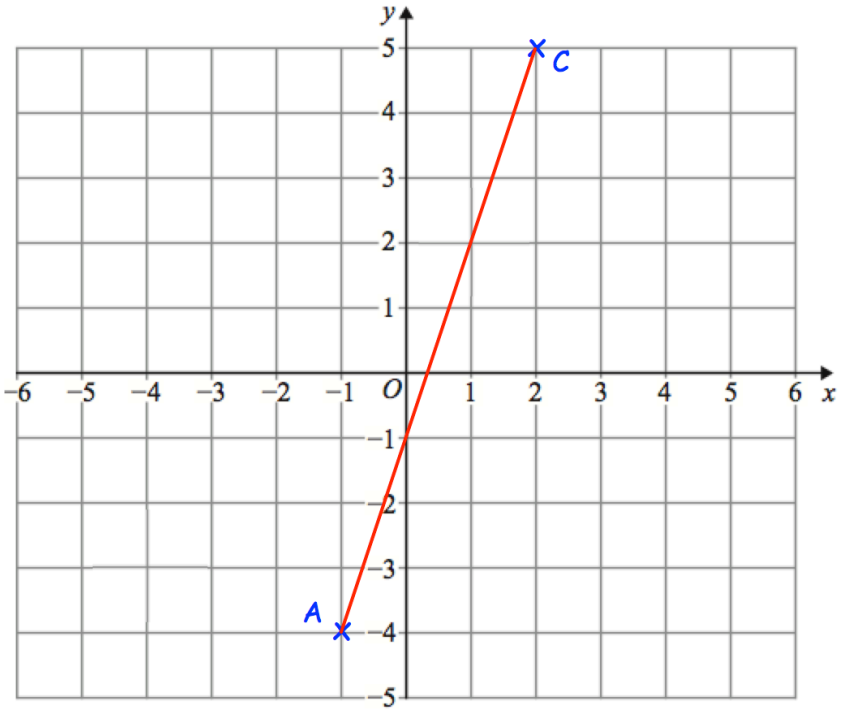
(2)

3.



A is the point with coordinates (–1, –4)
C is the point with coordinates (2, 5)

Find the gradient of the line AC.

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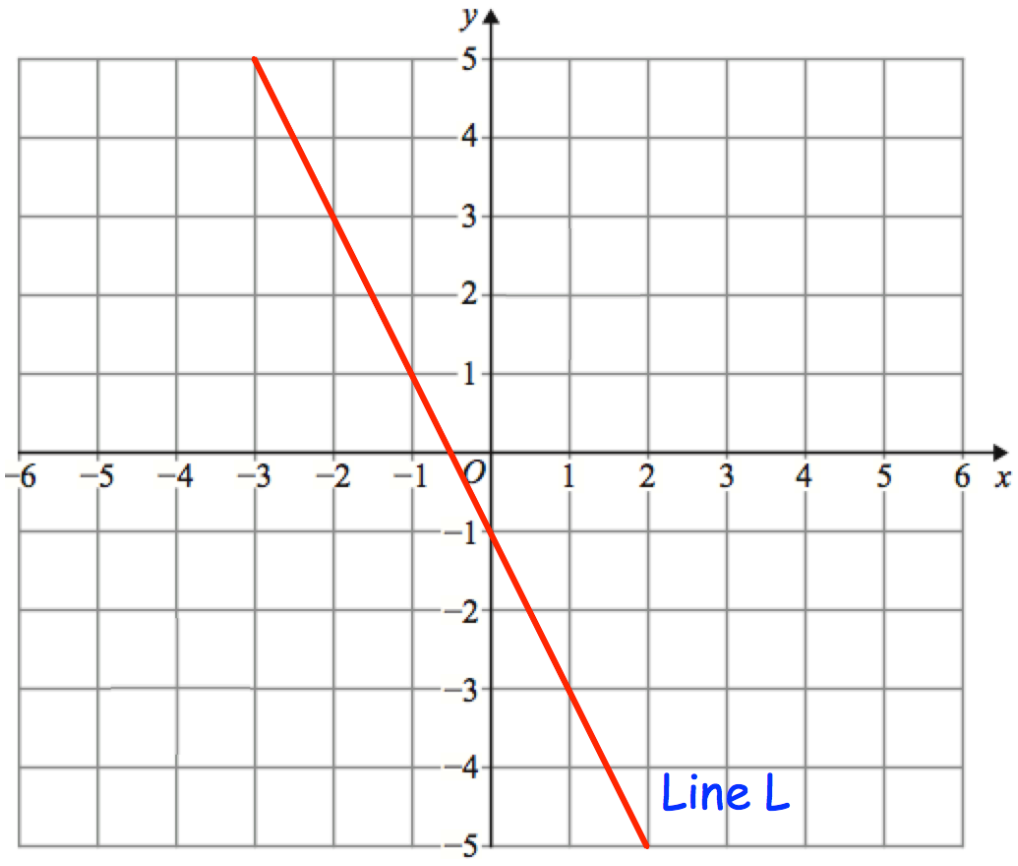
(2)

4.



Line L is drawn on the grid.

Work out the gradient of Line L.

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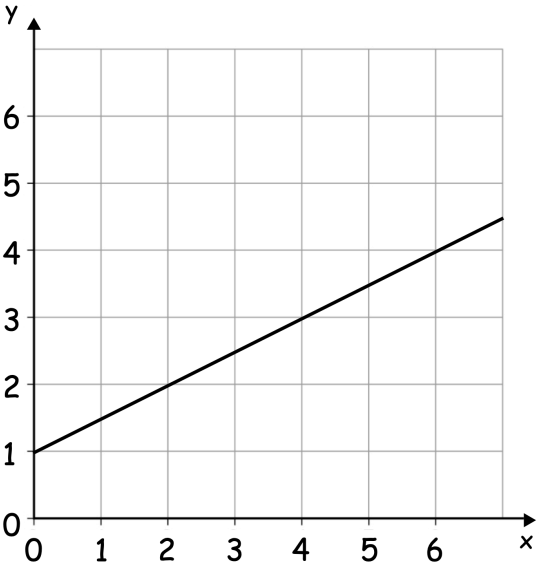
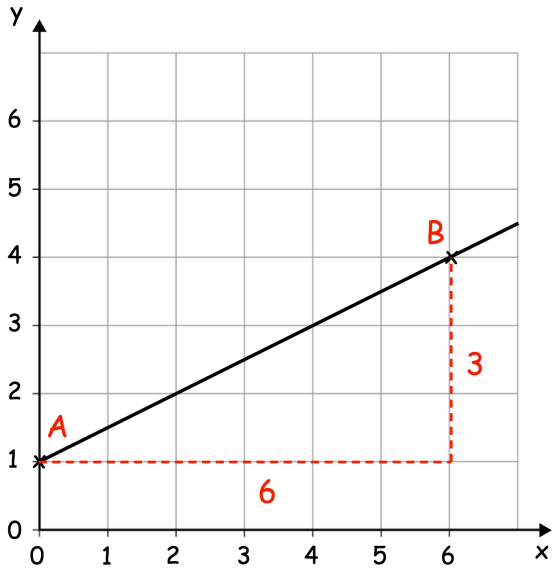
(2)

5. Carolyn was asked to find the gradient of a straight line drawn on the below.



To find the gradient of the line, she chose two points A and B.



Carolyn says that the gradient is 2, as $6 \div 3 = 2$

Is Carolyn correct?
Explain your answer.

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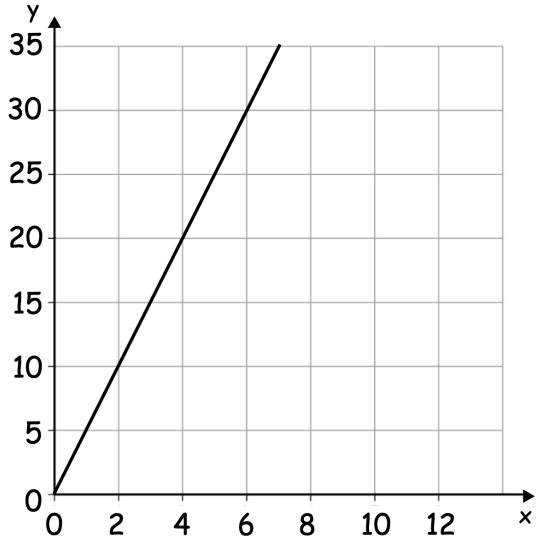
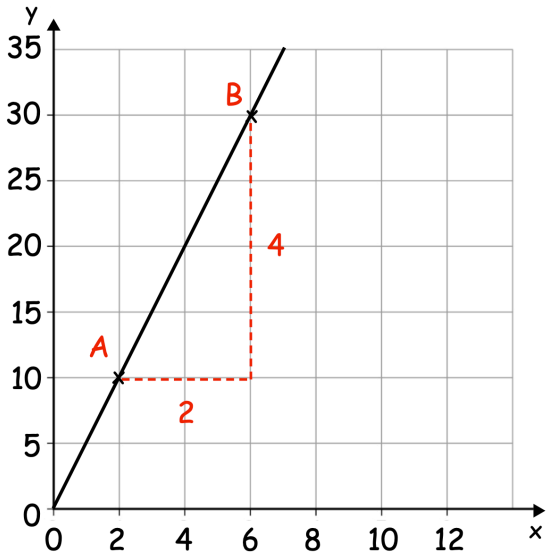
(2)

6. George was asked to find the gradient of a straight line drawn on the below.



To find the gradient of the line, he chose two points A and B.



George says that the gradient is 2, as $4 \div 2 = 2$

Explain why George is not correct.

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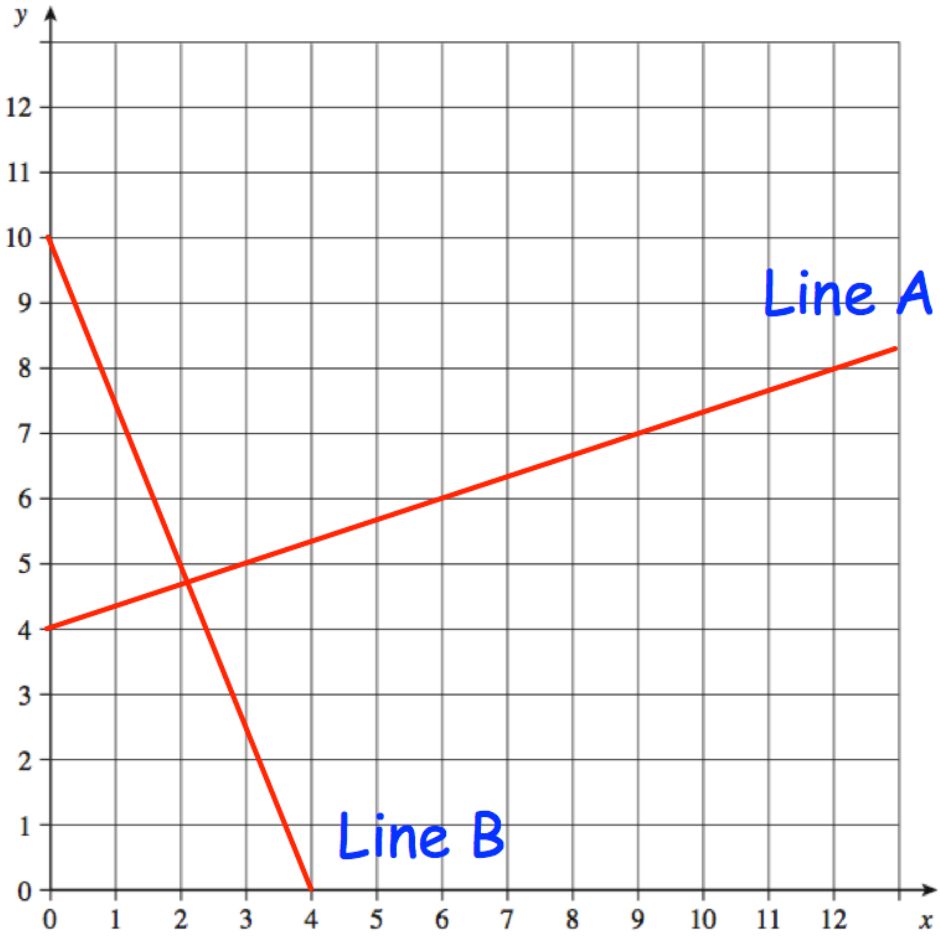
(2)

7.



(a) Line A is drawn on the grid.
Work out the gradient of Line A.

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(2)

(b) Line B is drawn on the grid.
Work out the gradient of Line B.

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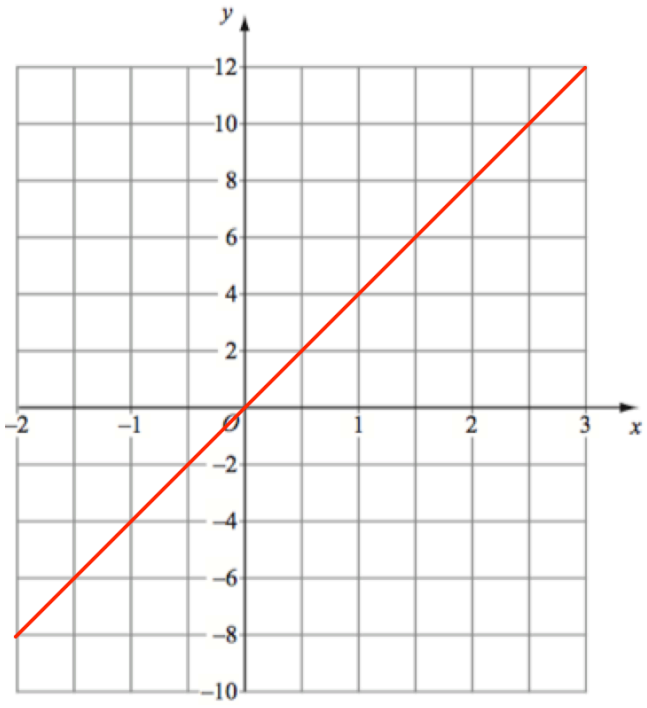
(2)

8.



Work out the gradient of the line shown.

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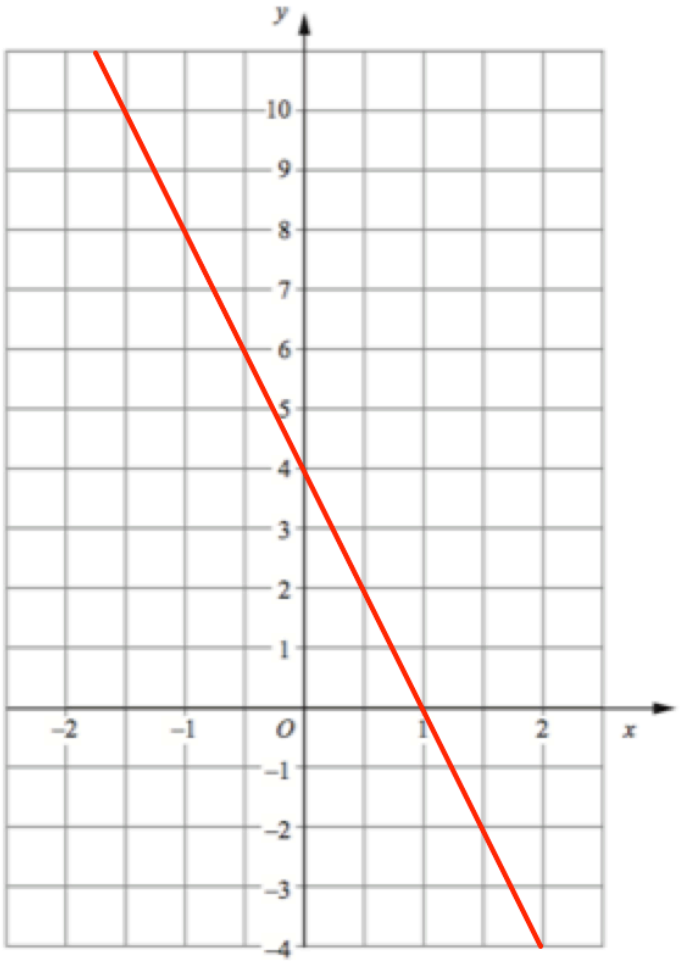
(2)

9.



Work out the gradient of the line shown.

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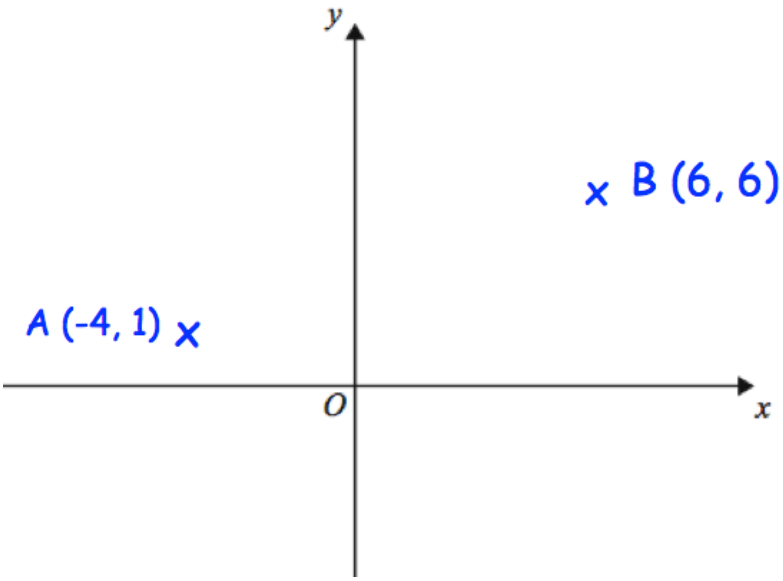
(2)

10.



A is the point (–4, 1)
B is the point (6, 6)

Find the gradient of AB.

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(2)

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11. A is the point with coordinates (1, 4)
B is the point with coordinates (7, 22)

Find the gradient of AB.

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(2)

12. Work out the gradient of the line passing through the points (–4, 5) and (–1, 11)

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(2)

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13. Work out the gradient of the line passing through the points (3, 2) and (7, 20)

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(2)

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14. Work out the gradient of the line passing through the points (–8, –20) and (–1, 22)

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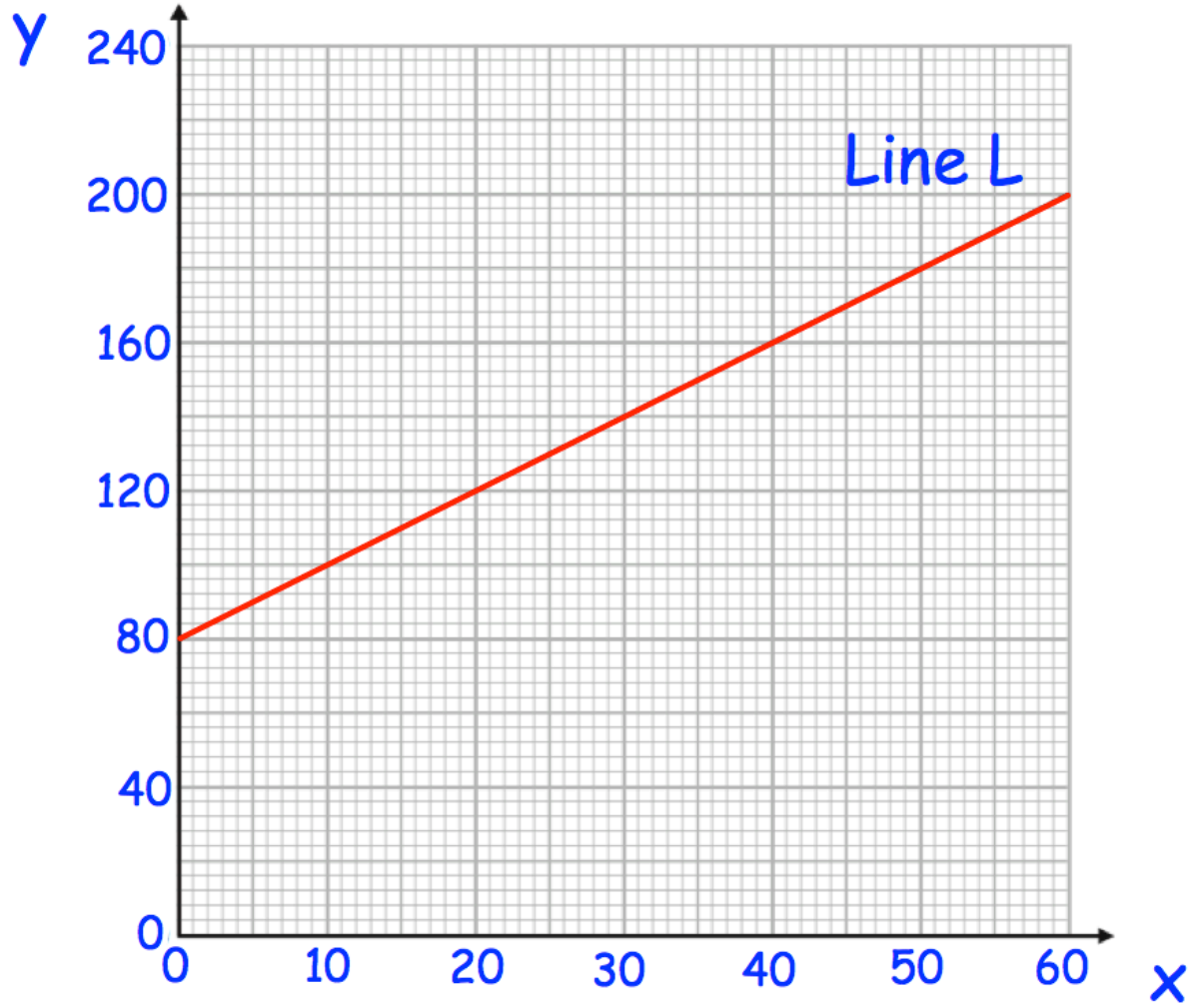
(2)

15.



Line L is drawn on the grid.

Work out the gradient of Line L.

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(2)

16. Work out the gradient of the line passing through the points (120, 1100) and (200, 3500)

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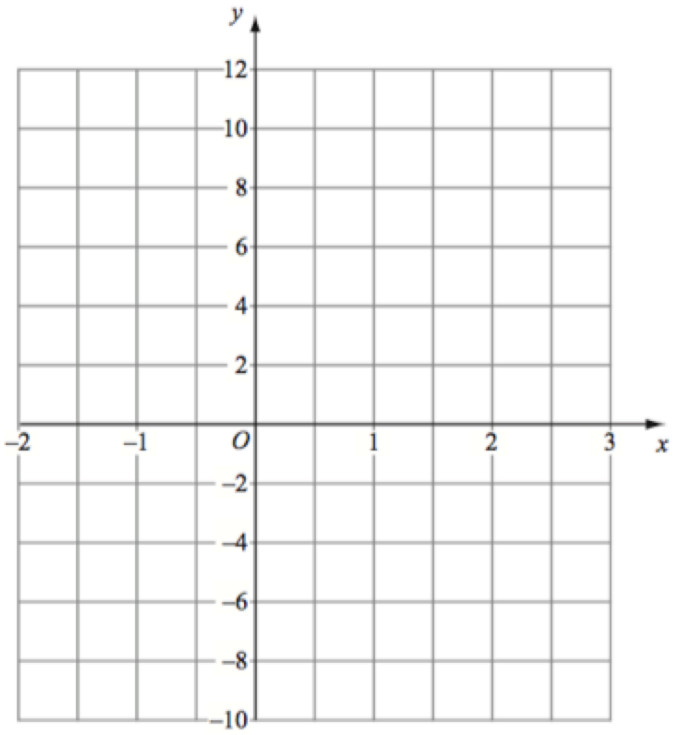
(2)

17.



(a) Draw the graph y = 4x + 2 on the grid above.

(2)

(b) Write down the gradient of the line y = 4x + 2

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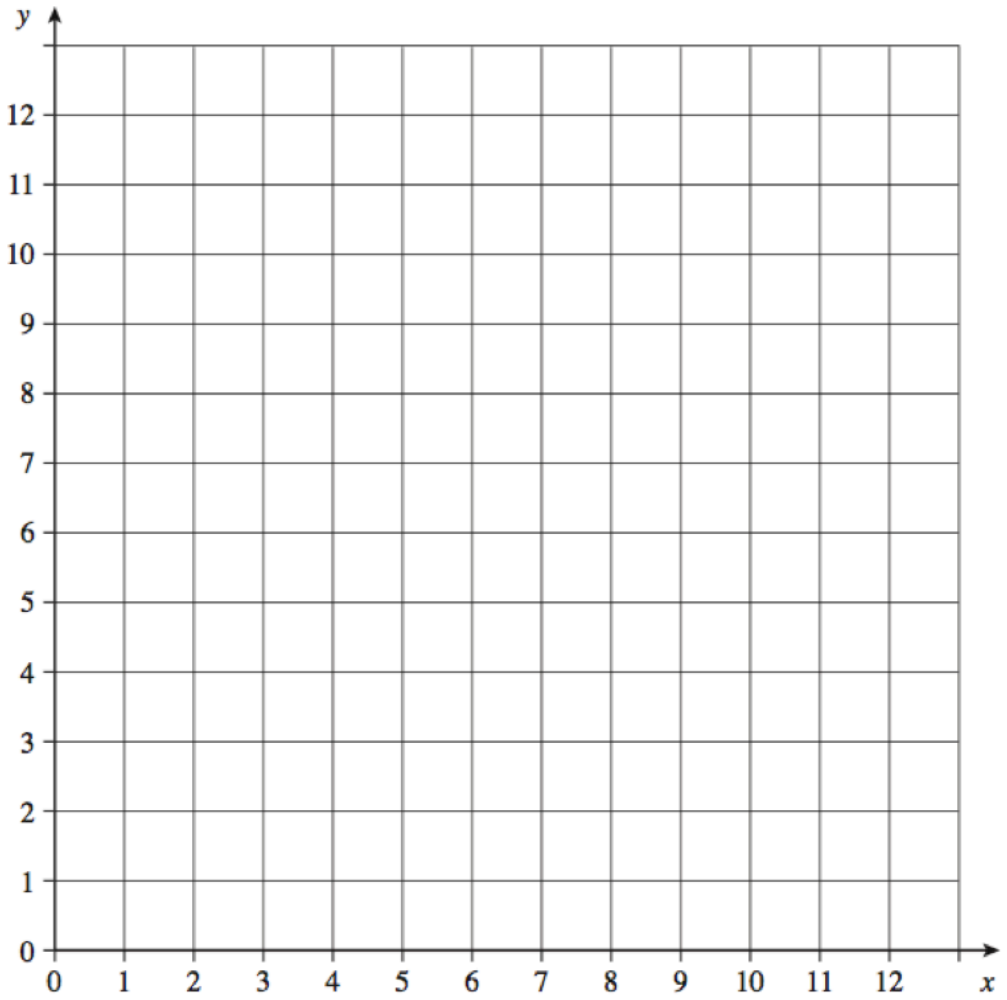
(1)

18.



(a) Draw the graph $2y + x = 20$ on the grid above.

(2)

(b) Work out the gradient of the line $2y + x = 20$

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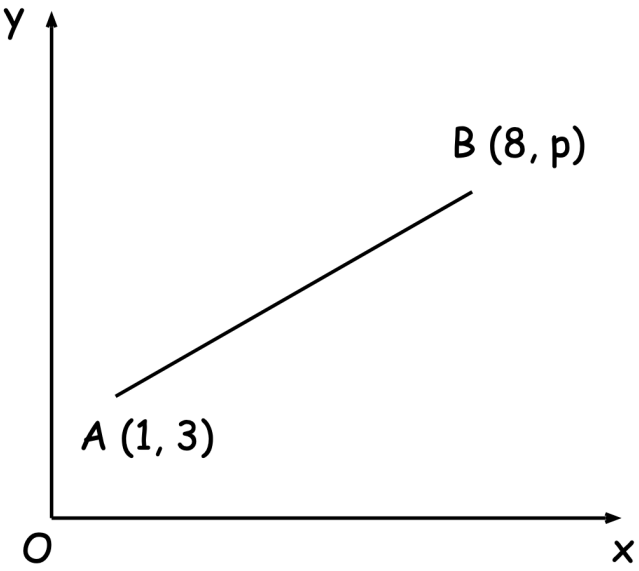
(2)

19. The point A has coordinates (1, 3)
The point B has coordinates (8, p)



The gradient of the line AB is 2

Work out the value of p.

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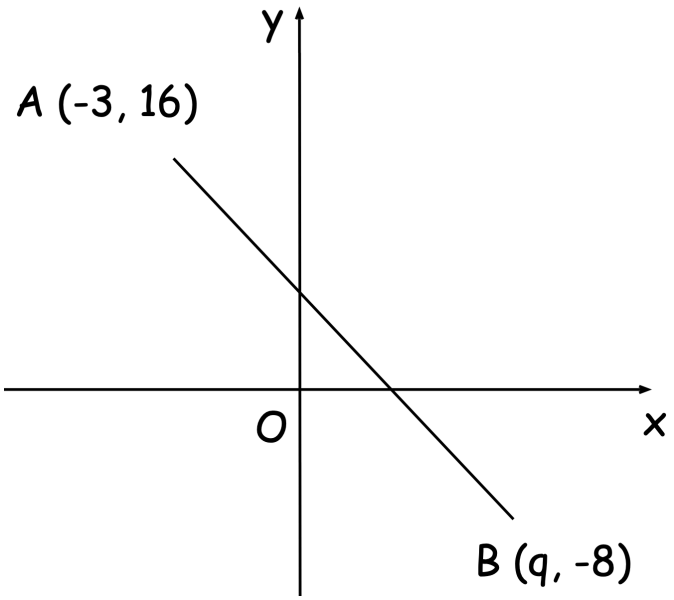
(3)

20. The point A has coordinates (–3, 16)
The point B has coordinates (q, –8)



The gradient of the line AB is –3

Work out the value of q.

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(3)

21. The line passing through (4, –7) and (8, c) has a gradient of 3

Find c.

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(3)

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22. The line passing through (6, –4) and (a, 10) has a gradient of 2.

Find a

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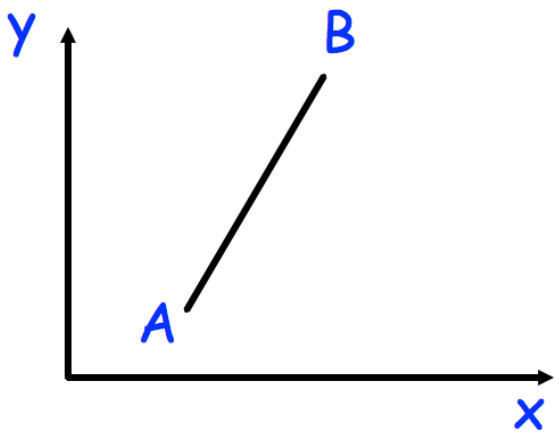
(3)

23.



A is the point (3, 1).
B is the point (a, 11).

The gradient of AB is $\frac{5}{2}$

Work out the value of a.

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(3)

24. The line passing through (4, a) and (8, 1) has a gradient of $\frac{3}{4}$

Work out the value of a.

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(3)

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25. A straight line passes through the points (m, n) and (p, q)

Given that

$p = m + 6$

$n = q - 18$

Find the gradient of the line.

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(3)