Name:

Exam Style Questions

Parallel Lines

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

Video 196

Answers and Video Solutions

1. Write down the gradient of a line parallel to $y = 7x + 4$

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(1)

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2. Circle the equation of the line parallel to $y = 3x - 5$

$y = 2x - 5$ $y = -3x + 4$ $y = 3x + 1$

(1)

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3. Write down the equation of a line parallel to y = 2x – 3

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(1)

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4. Write down the equation of the line that is parallel to y = 6x + 1 and passes through (0, 8).

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(2)

5. Write down the equation of the line that is parallel to y = x + 1 and passes through (0, –3).

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(2)

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6. Write down the equation of the line that is parallel to y = –4x – 5 and passes through (0, 10).

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(2)

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7. Circle the equation of the line parallel to y = –x + 2

y = x + 3 y = –x – 1 y = –2x – 1

(1)

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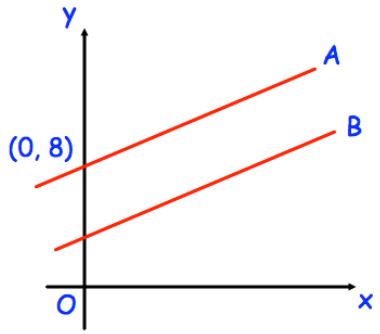
8. Circle the equation of the line parallel to $y = \frac{1}{4}x$

$y = \frac{1}{4}x + 2$ $y = -4x + 1$ $y = 4x + 3$ $y = -\frac{1}{4}x$

(1)

9.



The lines A and B are parallel.

The line A passes through the point (0, 8)
The line B has equation $y = 3x + 1$

Write down the equation of line A

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(2)

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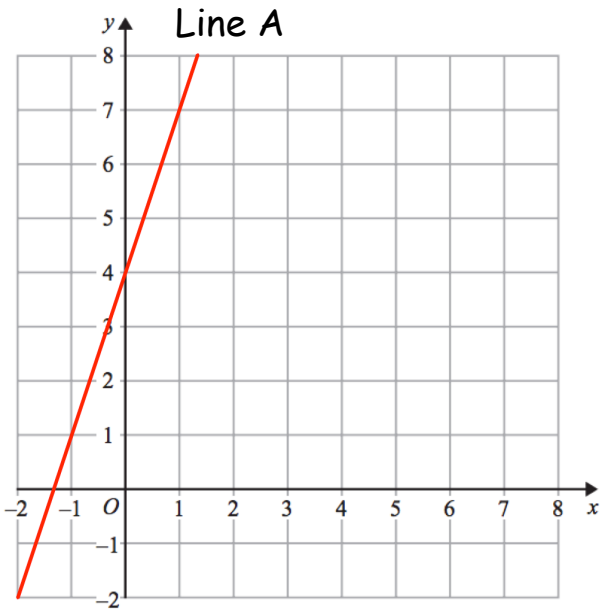
10. The line A is shown below.



(a) Work out the gradient of Line A.

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(2)

(b) Write down the equation of a line parallel to Line A.

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(1)

11. A straight line L passes through the points (0, 6) and (4, –2).
A straight line M passes through the point (0, 1) and is parallel to line L.

Find the equation of the line M

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(3)

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12. Write down the equation of the line that is parallel to $x + 2y = 4$ and passes through the point (0, 5)

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(2)

13. The equations of five lines are given below.

Line A $y = 2x + 3$

Line B $y = \frac{1}{2}x - 3$

Line C $y = 6 - x$

Line D $y - 2x = 7$

Line E $y + 2x = 3$

(a) Which line goes through the point (1, 9)?

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(1)

(b) Which two lines cross the y-axis at the same point?

..... and .....

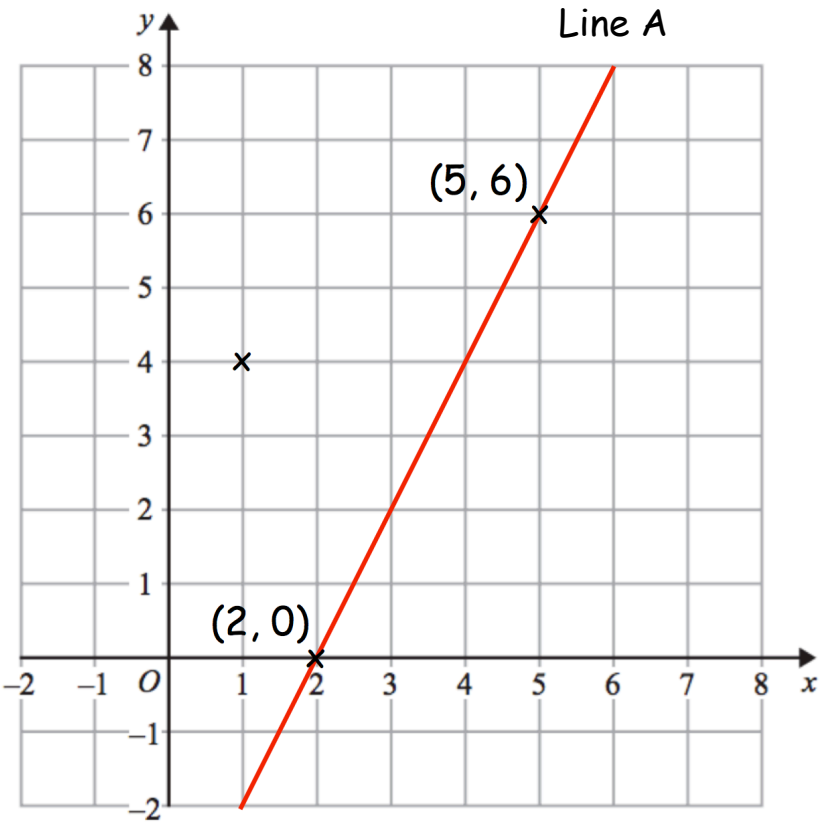
(2)

(c) Which two lines are parallel?

..... and .....

(2)

14. A straight line, A, passes through the points (2, 0) and (5, 6).



(a) Work out the gradient of Line A.

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(2)

Line B is parallel to Line A and passes through the point (1, 4).

(b) Work out the equation of Line B.

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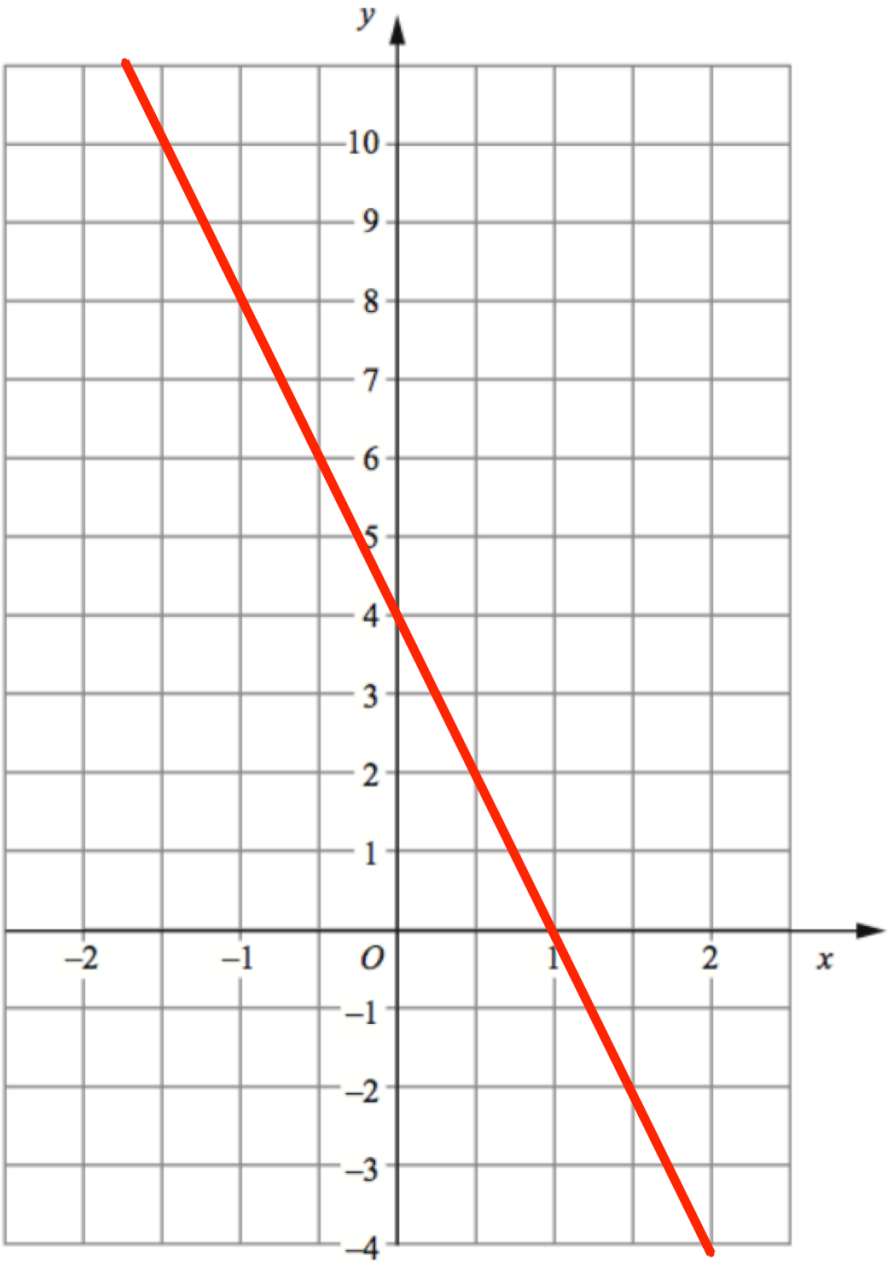
(2)

15.



The line A is drawn on the grid.

Another line B is parallel to line A and passes through the point (2, 0)

Find the equation for line B.

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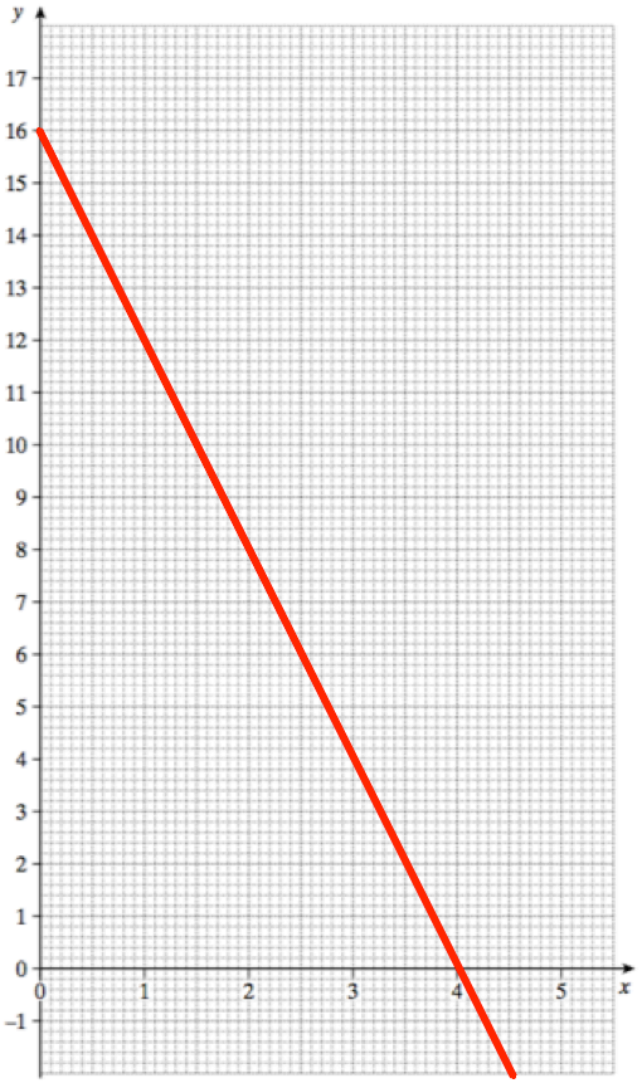
(4)

16. On the grid below, the lines A and B are drawn.



Shown above is the graph of line L

The line M is parallel to line L and passes through the point (1, 6)

Find the equation of line M.

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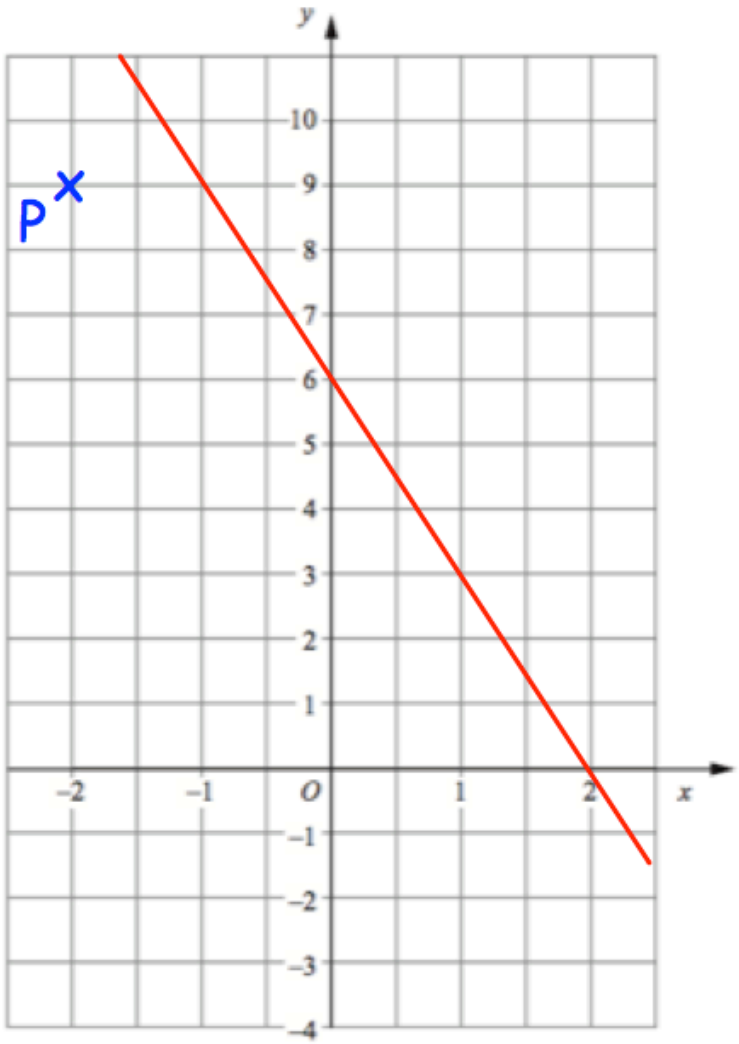
(3)

17. The line L is drawn on the grid.



(a) Find the equation of L.

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(3)

The point P has coordinates (–2, 9).

(b) Find an equation of the line that is parallel to L and passes through P.

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(2)

18. Line A and Line B are parallel.

Line A has equation $y = 5x + 9$
Line B passes through the point (7, 41)

Find the equation of Line B.

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(3)

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19. The straight line L has equation $y = 3x + 2$
The straight line M is parallel to line L and passes through the point (5, –1).

Find the equation of line M

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(3)

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20. Write down the equation of the line that is parallel to $y = 8x – 4$ and passes through the point (–3, –1)

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(3)

21. Show that the lines with equations $y = 4x - 1$ and $3y - 12x + 1 = 0$ are parallel.

(2)

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22. Write down the equation of the line that is parallel to $8x - 2y = 3$ and passes through (5, –1)

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(3)

23. Line A and Line B are parallel.

The line A passes through the points (–3, 4) and (3, 7).
The line B passes through the points (1, 0) and (10, p).

Find the value of p.

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(4)

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24. A straight line, L, passes through the point (–2, 5) and is parallel to $x + 2y = 4$

Find the coordinates of the point where L crosses the x-axis.

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(4)