



SCAN ME

Parallel Lines



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REVISE THIS TOPIC

CHECK YOUR ANSWERS

1 The equation of line L_1 is $y = 3x + 4$
The equation of line L_2 is $2y - 6x = 20$

Show that these two lines are parallel. [3 marks]

2 The equation of line L_1 is $y = 4x - 5$
The equation of line L_2 is $3y - 12x - 6 = 0$

Show that these two lines are parallel. [3 marks]





3 The equation of line L_1 is $y = 9 - 4x$
The equation of line L_2 is $2y + 8x = 10$

Show that these two lines are parallel.

[3 marks]

4 The equation of line L_1 is $y = \frac{1}{2}x + 1$
The equation of line L_2 is $6y - 3x = 30$

Show that these two lines are parallel.

[3 marks]

5 The equation of line L_1 is $y = 4 - x$
The equation of line L_2 is $5y - 5x - 50 = 0$

Show that these two lines are **not** parallel.

[3 marks]





6 The equation of line L_1 is $y = kx + 4$
The equation of line L_2 is $10y + 5x = 80$

Lines L_1 and L_2 are parallel. Work out the value of k . [3 marks]

$k =$ _____

7 The equation of line L_1 is $y = kx - 7$
The equation of line L_2 is $2y + 8x = 9$

Lines L_1 and L_2 are parallel. Work out the value of k . [3 marks]

$k =$ _____

8 The equation of line L_1 is $y = 8 - 6x$
The equation of line L_2 is $ky + 3x - 2 = 0$

Lines L_1 and L_2 are parallel. Work out the value of k . [3 marks]

$k =$ _____

Turn over ►





9 Here are some equations of straight lines.
Match each equation on the left with one on the right so that the lines with those two equations are parallel.

One has been done for you.

[3 marks]

$$y = 2x + 5$$

$$y = 6 - 2x$$

$$2y = 2x + 8$$

$$y - 2x = 8$$

$$y + 2x = 10$$

$$4y = 20 - 2x$$

$$2y = x + 6$$

$$y = x - 4$$

$$2y + x = 8$$

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





10

- $A = (3, 4)$
- $B = (5, 10)$
- $C = (8, 10)$
- $D = (5, 1)$

Show that AB is parallel to CD .
You **must** show your working.

[4 marks]

11

- $A = (1, -3)$
- $B = (3, 5)$
- $C = (-2, 5)$
- $D = (8, k)$

AB is parallel to CD
Work out the value of k .

[4 marks]

$k =$ _____

Turn over ►



12

The equation of line L_1 is $y = 3x + 1$ The equation of line L_2 is $y + kx = 20$ where k is an integer.The equation of line L_3 is $2y = 3x + c$ where c is an integer.

Tick the correct box for each statement below.

[3 marks]

	Must be true	Could be true	Cannot be true
Lines L_1 and L_2 are parallel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lines L_2 and L_3 are parallel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lines L_1 and L_3 are parallel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

