Parallel Lines

SCAN ME

REVISE THIS TOPIC

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SCAN ME

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

Show that these two lines are parallel.

(Total for Question 1 is 2 marks)

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

Show that these two lines are parallel.

(Total for Question 2 is 2 marks)

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

Show that these two lines are parallel.

(Total for Question 3 is 2 marks)

4 The equation of line $\mathbf{L_1}$ is $y = \frac{1}{2}x + 1$

The equation of line $\mathbf{L_2}$ is $6y - 3x = 30$

Show that these two lines are parallel.

(Total for Question 4 is 2 marks)

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

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

(Total for Question 5 is 2 marks)

Solutions

6 The equation of line $\mathbf{L_1}$ is $y = kx + 5$
The equation of line $\mathbf{L_2}$ is $10y + 5x = 80$

Lines $\mathbf{L_1}$ and $\mathbf{L_2}$ are parallel.
Work out the value of k.

$k =$ .....

(Total for Question 6 is 2 marks)

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

Lines $\mathbf{L_1}$ and $\mathbf{L_2}$ are parallel.
Work out the value of k.

$k =$ .....

(Total for Question 7 is 2 marks)

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

Lines $\mathbf{L_1}$ and $\mathbf{L_2}$ are parallel.
Work out the value of k.

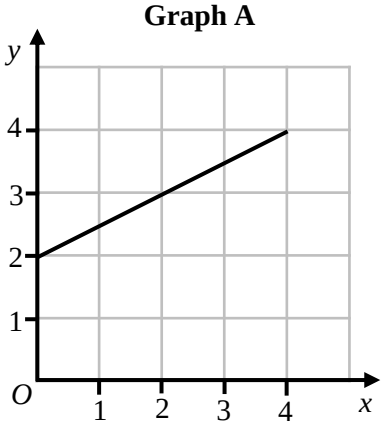
$k =$ .....

(Total for Question 8 is 2 marks)

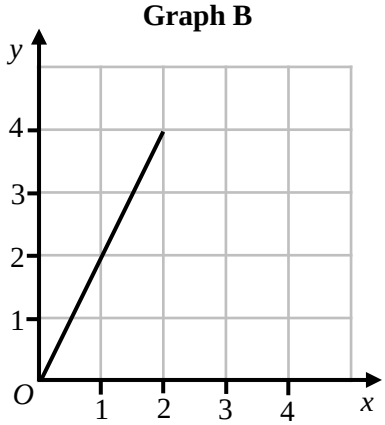
Solutions

9 Here are 4 graphs.

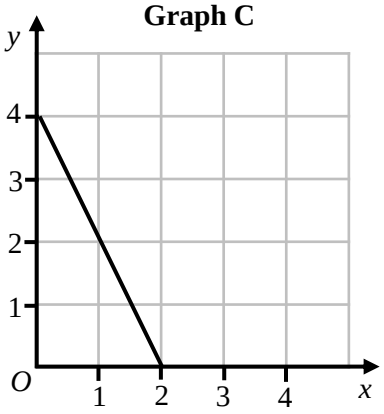
Graph A



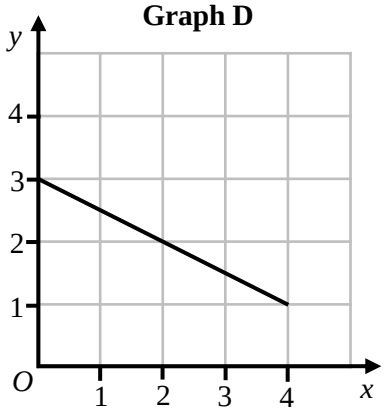
Graph B



Graph C



Graph D



The table below contains four equations.
Each of the graphs above is parallel to one of the equations below.
Complete the table.

Equation	Graph Letter
$y = 2x + 5$	
$y + 2x = 10$	
$2y = x + 6$	
$2y + x = 8$	

(Total for Question 9 is 3 marks)

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.

(Total for Question 10 is 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.

$k =$ .....

(Total for Question 10 is 4 marks)