GCSE FOUNDATION · REVISION MAT 5

Straight-line graphs

1 Complete the table of values for $y = -2x + 1$

x	−2	−1	0	1	2	3
y			1	−1		

2 Write down the gradient and the y-intercept of the line

$y = -5x - 2$

3 Does the point (−1, −6) lie on the line $y = 2x - 3$?

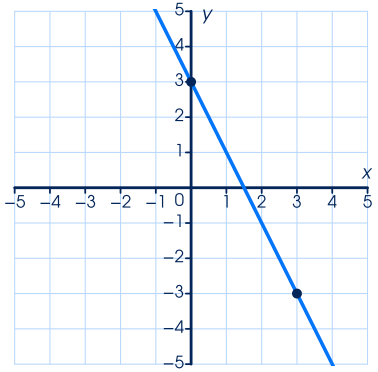
Explain your answer.

4 Show that these two lines are parallel.

$y = -2x + 6$

$3y = -6x - 1$

5 A straight line is drawn on the grid.



Find the equation of the line.

6 The line $x = -3$ and the line $y = 2x + 7$ cross at the point P.

(a) Find the coordinates of P.

(b) Describe the line $x = -3$.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 5

Straight-line graphs

1

x	−2	−1	0	1	2	3
y	**5**	**3**	1	−1	**−3**	**−5**

2 Gradient **−5**

y-intercept **−2**

3 When $x = -1$, $y = 2 \times -1 - 3 = -5$

No, because $-5 \neq -6$.

4 Divide the second equation by 3:

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

Both lines have gradient **−2**, so they are parallel ✓

5 Gradient = $-6 \div 3 = -2$

y-intercept = 3

$y = -2x + 3$

6 (a) $y = 2 \times -3 + 7 = 1$, so P = **(−3, 1)**

(b) **A vertical line** through −3 on the x-axis.