GCSE FOUNDATION · REVISION MAT 3

Straight-line graphs

1 Complete the table of values for $y = -x + 4$

x	−2	−1	0	1	2	3
y					2	1

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

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

3 Does the point (5, 8) lie on the line $y = 2x - 3$?

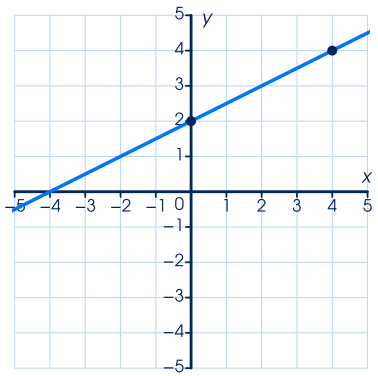
Explain your answer.

4 Show that these two lines are parallel.

$y = 5x - 2$

$3y = 15x + 4$

5 A straight line is drawn on the grid.



Find the equation of the line.

6 The line $x = 4$ and the line $y = \frac{1}{2}x + 1$ cross at the point P.

(a) Find the coordinates of P.

(b) Describe the line $x = 4$.

1

x	−2	−1	0	1	2	3
y	**6**	**5**	**4**	**3**	2	1

2 Gradient $\frac{1}{2}$

y-intercept **3**

3 When $x = 5$, $y = 2 \times 5 - 3 = 7$

No, because $7 \neq 8$.

ANSWERS · REVISION MAT 3

Straight-line graphs

4 Divide the second equation by 3:

$y = 5x + \frac{4}{3}$

Both lines have gradient **5**, so they are parallel ✓

5 Gradient $= 2 \div 4 = \frac{1}{2}$

y-intercept $= 2$

$y = \frac{1}{2}x + 2$

6 (a) $y = 0.5 \times 4 + 1 = 3$, so P = **(4, 3)**

(b) **A vertical line** through 4 on the x-axis.

Mr&Mrs MATHS