Straight line graphs 1 Answers

1)

18	(a) $-\frac{4}{5}$ or $\frac{4}{-5}$ cao (b) $y = -\frac{4}{5}x$ (+0) oe forms (c) $y = -\frac{4}{5}x + 3.4$ oe	1 1√ 2	Note that a **fraction** is required y = (a)x allow decimal or unsimplified fraction **W1**√ y = (a) x + c **or** y = (b)x + c **W1** 3.4 Allow 17/5 oe

2)

9	$y = \frac{1}{2}x + 5$	3	**M1** $(m=)\ \frac{8-5}{6-0}$ **oe B1** $(c=)\ 5$ **or** **M1 A1** $y - 8 = \frac{1}{2}(x-6)$ or $y - 5 = \frac{1}{2}(x-0)$ Allow 3/6 for the $\frac{1}{2}$ **A1** $y = \frac{1}{2}x + 5$ or $2y - x = 10$ **oe**

3)

(a) $y = 2x - 4$ **(b)** (2, 0)	2 1ft	**W1** $2x + c$ **or** **W1** $mx - 4$ For $y = 2x + k$ only, allow $(-k/2, 0)$

4)

(4, 2)	2	**M1** $\frac{2+6}{2}$ and $\frac{-5+9}{2}$ oe or a drawing used correctly

5)

5 **www**	2	**M1** $(-4 - -1)^2 + (8 - 4)^2$ or better

6)

$m = 2$ $c = -8$	4	**B1** $B(4, 0)$ or $A(-2, 0)$ seen or used **B1** $m = 2$ **M1** substituting (4, 0) into $y = 2x + c$ or $\frac{0-c}{4-0} = 2$

7)

(a) 4 **(b)** $y = -2x + 9$ oe	1 3	 **M1** $\frac{5-3}{2-3}$ oe **M1** substitution of a point into their equation If **M1** only then **A1**ft for $y =$ "m"$x +$ "c" used correctly with their numeric values

Straight line graphs 1 Answers

8)

13	**3**	**B1** for 12, 5 seen **M1** for (their 12)^2 + (their 5)^2 or **M2** $\sqrt{[(-8-4)^2 + (1-6)^2]}$ oe or **M1** if $\sqrt{}$ missing

9)

(a) (2, 4)	1	
(b) (6, 0)	1	
(c) (i) (4, 2) ft	1**ft**	From **(a)** and **(b)**
(ii) $y = -3x + 14$ oe	2	**M1** sub their **(c)(i)** into $y = -3x + c$ oe

10)

(a) (6, 1½)	**1**	
(b) $y = -\frac{1}{5}x + 4$ oe	**3**	**B1** correct numerical format **B1** correct m **B1** correct c

11)

$y = 4x + 1$	**3**	**B1** correct numerical $y = mx + c$ **B1** $c = 1$ **B1** $m = 4$