Multiple choice questions - Straight-line graphs

Year: Year 8 · 10

Question 1 What is the gradient of $y = 5x - 2$?

- ◯ **A.** -2
- ◯ **B.** 5
- ◯ **C.** 2
- ◯ **D.** -5

Question 2 What is the y-intercept of $y = 3 - 4x$?

- ◯ **A.** 3
- ◯ **B.** -4
- ◯ **C.** 4
- ◯ **D.** -3

Question 3 Gradient of the line through $(0, 0)$ and $(2, 6)$?

- ◯ **A.** 2
- ◯ **B.** 3
- ◯ **C.** 6
- ◯ **D.** 12

Question 4 Which point lies on $y = x + 4$?

- ◯ **A.** $(2, 8)$
- ◯ **B.** $(1, 5)$
- ◯ **C.** $(4, 4)$
- ◯ **D.** $(0, 0)$

Question 5 Which line is horizontal?

- ◯ **A.** $x = 2$
- ◯ **B.** $y = x$
- ◯ **C.** $y = 5$
- ◯ **D.** $y = 2x$

Question 6 Midpoint of $(0, 0)$ and $(6, 10)$?

- ◯ **A.** $(3, 5)$
- ◯ **B.** $(6, 10)$
- ◯ **C.** $(5, 3)$

- **D.** $(3, 10)$

Question 7 A line slopes down from left to right. Its gradient is

- **A.** positive
- **B.** negative
- **C.** zero
- **D.** undefined for all lines

Question 8 Which line is parallel to $y = 2x + 5$?

- **A.** $y = 5x + 2$
- **B.** $y = 2x - 3$
- **C.** $y = -2x + 5$
- **D.** $y = x + 5$

Question 9 Where does $y = 4x - 8$ cross the x-axis?

- **A.** $(8, 0)$
- **B.** $(0, -8)$
- **C.** $(2, 0)$
- **D.** $(-2, 0)$

Question 10 Rearranging $2y = 6x + 4$ gives

- **A.** $y = 3x + 2$
- **B.** $y = 6x + 2$
- **C.** $y = 3x + 4$
- **D.** $y = 6x + 4$

Answer grid - Straight-line graphs

Year: Year 8

Question	Answer	Explanation
1	**B**	The number multiplying x.
2	**A**	When $x = 0$, $y = 3$.
3	**B**	$\frac{6}{2} = 3$.
4	**B**	$1 + 4 = 5$.
5	**C**	$y = k$ is horizontal.
6	**A**	Average each coordinate.
7	**B**	Downwards slope: negative.
8	**B**	Same gradient 2.
9	**C**	$0 = 4x - 8$, $x = 2$.
10	**A**	Divide each term by 2.