Multiple choice questions - Straight-line graphs

Year: Year 10 · 10

Question 1 The gradient of $y = 5x - 3$ is

- ◯ **A.** 5
- ◯ **B.** -3
- ◯ **C.** 3
- ◯ **D.** -5

Question 2 The y-intercept of $y = -x + 7$ is

- ◯ **A.** -1
- ◯ **B.** 7
- ◯ **C.** -7
- ◯ **D.** 1

Question 3 The midpoint of $(0, 4)$ and $(6, 10)$ is

- ◯ **A.** $(3, 7)$
- ◯ **B.** $(6, 14)$
- ◯ **C.** $(3, 3)$
- ◯ **D.** $(6, 6)$

Question 4 The gradient through $(0, 1)$ and $(4, 9)$ is

- ◯ **A.** 2
- ◯ **B.** 4
- ◯ **C.** 8
- ◯ **D.** $\frac{1}{2}$

Question 5 A line parallel to $y = 3x + 2$ is

- ◯ **A.** $y = 3x - 5$
- ◯ **B.** $y = -3x + 2$
- ◯ **C.** $y = 2x + 3$
- ◯ **D.** $y = \frac{1}{3}x + 2$

Question 6 The gradient of $2y = 6x + 4$ is

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

- ◯ **D.** 4

Question 7 Which point lies on $y = 2x - 1$?

- ◯ **A.** $(3, 5)$
- ◯ **B.** $(3, 7)$
- ◯ **C.** $(1, 3)$
- ◯ **D.** $(2, 5)$

Question 8 The horizontal line through $(2, 5)$ has equation

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

Question 9 (Higher) A line has gradient 4. A perpendicular line has gradient

- ◯ **A.** 4
- ◯ **B.** -4
- ◯ **C.** $\frac{1}{4}$
- ◯ **D.** $-\frac{1}{4}$

Question 10 (Higher) The perpendicular gradient to $-\frac{2}{3}$ is

- ◯ **A.** $\frac{3}{2}$
- ◯ **B.** $-\frac{3}{2}$
- ◯ **C.** $\frac{2}{3}$
- ◯ **D.** $-\frac{2}{3}$

Answer grid - Straight-line graphs

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Question	Answer	Explanation
1	**A**	Coefficient of x.
2	**B**	The constant term.
3	**A**	Average the coordinates.
4	**A**	$\frac{8}{4}$.
5	**A**	Same gradient.
6	**B**	$y = 3x + 2$.
7	**A**	$2 \times 3 - 1 = 5$.
8	**B**	Constant y.
9	**D**	Negative reciprocal.
10	**A**	Turn upside down and change sign.