Multiple choice questions - Simultaneous equations

Year: Year 10 · 10

Question 1 $x + y = 8$ and $x - y = 2$ give

- ◯ **A.** x=5, y=3
- ◯ **B.** x=6, y=2
- ◯ **C.** x=4, y=4
- ◯ **D.** x=3, y=5

Question 2 To eliminate y from $2x + 3y = 7$ and $4x - 3y = 5$, you should

- ◯ **A.** subtract
- ◯ **B.** add
- ◯ **C.** multiply the first by 2
- ◯ **D.** divide

Question 3 $y = x + 2$ and $y = 2x - 1$ meet at

- ◯ **A.** $(3, 5)$
- ◯ **B.** $(1, 3)$
- ◯ **C.** $(2, 4)$
- ◯ **D.** $(5, 3)$

Question 4 Two lines with the same gradient and different intercepts have

- ◯ **A.** one solution
- ◯ **B.** two solutions
- ◯ **C.** no solutions
- ◯ **D.** infinite solutions

Question 5 $2x + y = 9$ and $x + y = 5$ give

- ◯ **A.** x=4, y=1
- ◯ **B.** x=2, y=3
- ◯ **C.** x=3, y=2
- ◯ **D.** x=5, y=0

Question 6 The solution of a pair of simultaneous equations on a graph is

- ◯ **A.** the gradient
- ◯ **B.** where the lines cross
- ◯ **C.** the y-intercept

- ◯ **D.** the midpoint

Question 7 $x + y = 3$ and $x - y = 7$ give

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

Question 8 $3x + y = 11$ and $x = 2$ give $y =$

- ◯ **A.** 5
- ◯ **B.** 6
- ◯ **C.** 17
- ◯ **D.** 3

Question 9 (Higher) $y = x^2$ and $y = 4$ meet at $x =$

- ◯ **A.** 2 only
- ◯ **B.** ± 2
- ◯ **C.** ± 4
- ◯ **D.** ± 16

Question 10 (Higher) $y = x + 2$ and $y = x^2$ meet at

- ◯ **A.** $(2, 4)$ and $(-1, 1)$
- ◯ **B.** $(2, 4)$ only
- ◯ **C.** $(-2, 0)$ and $(1, 3)$
- ◯ **D.** $(4, 2)$ and $(1, -1)$

Answer grid - Simultaneous equations

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Question	Answer	Explanation
1	**A**	Add: $2x = 10$.
2	**B**	The y terms have opposite signs, so add.
3	**A**	$x + 2 = 2x - 1$, $x = 3$.
4	**C**	Parallel lines never meet.
5	**A**	Subtract: $x = 4$.
6	**B**	The intersection point.
7	**A**	$2x = 10$.
8	**A**	$6 + y = 11$.
9	**B**	$x^2 = 4$.
10	**A**	$x^2 - x - 2 = 0$.