Multiple choice questions - Linear equations and inequalities

Year: Year 10 · 10

Question 1 Solve $2x + 7 = 15$.

- **A.** x = 4
- **B.** x = 11
- **C.** x = 8
- **D.** x = 22

Question 2 Solve $3x - 4 = x + 10$.

- **A.** x = 3
- **B.** x = 5
- **C.** x = 7
- **D.** x = 14

Question 3 Solve $\frac{x + 1}{3} = 4$.

- **A.** x = 11
- **B.** x = 13
- **C.** x = 12
- **D.** x = 4

Question 4 Solve $2x < 10$.

- **A.** $x < 5$
- **B.** $x > 5$
- **C.** $x < 20$
- **D.** $x \leq 5$

Question 5 Solve $-2x > 6$.

- **A.** $x > -3$
- **B.** $x < -3$
- **C.** $x > 3$
- **D.** $x < 3$

Question 6 How many integers satisfy $-2 \leq x < 2$?

- **A.** 3
- **B.** 4

- ◯ **C.** 5
- ◯ **D.** 2

Question 7 An open circle at 3 with an arrow to the right shows

- ◯ **A.** $x \geq 3$
- ◯ **B.** $x > 3$
- ◯ **C.** $x < 3$
- ◯ **D.** $x \leq 3$

Question 8 Solve $5 - x \geq 2$.

- ◯ **A.** $x \geq 3$
- ◯ **B.** $x \leq 3$
- ◯ **C.** $x \geq -3$
- ◯ **D.** $x \leq -3$

Question 9 (Higher) $x^2 > 9$ has solution

- ◯ **A.** $x > 3$
- ◯ **B.** $-3 < x < 3$
- ◯ **C.** $x < -3$ or $x > 3$
- ◯ **D.** $x > 9$

Question 10 (Higher) $x^2 \leq 25$ has solution

- ◯ **A.** $x \leq 5$
- ◯ **B.** $-5 \leq x \leq 5$
- ◯ **C.** $x \geq 5$
- ◯ **D.** $x \leq -5$ or $x \geq 5$

Answer grid - Linear equations and inequalities

Year: Year 10

Question	Answer	Explanation
1	**A**	$2x = 8$.
2	**C**	$2x = 14$.
3	**A**	$x + 1 = 12$.
4	**A**	Divide by 2.
5	**B**	Dividing by -2 reverses the sign.
6	**B**	$-2, -1, 0, 1$.
7	**B**	Open circle: strict inequality.
8	**B**	$-x \geq -3$, reverse.
9	**C**	Outside the roots.
10	**B**	Between the roots.