Multiple choice questions - Solving linear equations and rearranging formulae

Year: Year 9 · 10

Question 1 Solve $2x + 9 = 25$.

- ◯ **A.** x = 17
- ◯ **B.** x = 8
- ◯ **C.** x = 7
- ◯ **D.** x = 34

Question 2 Solve $6x - 4 = 4x + 10$.

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

Question 3 Solve $\frac{x}{5} = 4$.

- ◯ **A.** x = 20
- ◯ **B.** x = 0.8
- ◯ **C.** x = 9
- ◯ **D.** x = 1.25

Question 4 Solve $2(x + 3) = 14$.

- ◯ **A.** x = 4
- ◯ **B.** x = 11
- ◯ **C.** x = 5
- ◯ **D.** x = 8

Question 5 Make a the subject of $s = ut + a$.

- ◯ **A.** $a = s + ut$
- ◯ **B.** $a = ut - s$
- ◯ **C.** $a = \frac{s}{ut}$
- ◯ **D.** $a = s - ut$

Question 6 Solve $5 - x = 9$.

- ◯ **A.** x = 4
- ◯ **B.** x = -4

- ◯ **C.** x = 14
- ◯ **D.** x = -14

Question 7 Make x the subject of $y = 5x - 3$.

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

Question 8 Solve $\frac{x+1}{2} = \frac{x}{3} + 1$.

- ◯ **A.** x = 3
- ◯ **B.** x = 1
- ◯ **C.** x = 9
- ◯ **D.** x = 6

Question 9 Three consecutive whole numbers add up to 51. If the smallest is n, which equation is correct?

- ◯ **A.** 3n = 51
- ◯ **B.** 3n + 3 = 51
- ◯ **C.** n + 3 = 51
- ◯ **D.** 3n + 1 = 51

Question 10 Make t the subject of $d = \frac{t}{4}$.

- ◯ **A.** $t = \frac{d}{4}$
- ◯ **B.** $t = d - 4$
- ◯ **C.** $t = 4d$
- ◯ **D.** $t = d + 4$

Answer grid - Solving linear equations and rearranging formulae

Year: Year 9

Question	Answer	Explanation
1	**B**	2x = 16, x = 8.
2	**C**	2x = 14.
3	**A**	Multiply by 5.
4	**A**	x + 3 = 7, x = 4.
5	**D**	Subtract ut from both sides.
6	**B**	-x = 4, so x = -4.
7	**A**	Add 3, then divide by 5.
8	**A**	Multiply by 6: 3x + 3 = 2x + 6, so x = 3.
9	**B**	n + (n+1) + (n+2) = 3n + 3.
10	**C**	Multiply both sides by 4.