

Name: _____

Date: _____

GRADE 7 MATH: BALANCING LINEAR EQUATIONS
(Addition & Subtraction)

Instructions: Solve each problem by using inverse operations to balance the equation and isolate the variable. Write your final answer in the box.

1. What inverse operation should you use to isolate x in: $x + 8 = 15$?

☐ Add 8

☐ Multiply by 8

☐ Subtract 8

☐ Divide by 8

2. To keep the equation balanced, if you subtract 5 from the left side of $x + 5 = 12$, what must you do to the right side?

Answer: _____

3. Solve for x : $x + 12 = 27$

$x = \underline{\hspace{2cm}}$

4. Solve for y : $y - 11 = 9$

$y = \underline{\hspace{2cm}}$

5. Solve for a : $a + 14 = 5$

$a = \underline{\hspace{2cm}}$

6. What is the correct first step to isolate x in: $12 = x - 4$?

☐ Add 4 to both sides

☐ Subtract 4 from both sides

☐ Add 12 to both sides

7. Solve for m : $m - 25 = 15$

$m = \underline{\hspace{2cm}}$

8. Solve for p : $p + 6 = -2$

$p = \underline{\hspace{2cm}}$

9. Which of the following shows the equation $x + 9 = 22$ after correctly applying the inverse operation to both sides?

☐ $x = 22 + 9$

☐ $x = 22 - 9$

$$[] x = 9 - 22$$