

Name: _____

Two-Step Equations

Balance both sides of the equation by using inverse operations to get the variable alone and find its value.

examples:

$$2x + 5 = 21$$
$$\underline{-5} \quad \underline{-5}$$

$$\underline{2x} = \underline{16}$$
$$\underline{2} \quad \underline{2}$$

$$\underline{x} = \underline{8}$$

$$5 + \frac{y}{6} = 13$$
$$\underline{-5} \quad \underline{-5}$$

$$(6) \frac{y}{6} = 8 (6)$$

$$\underline{y} = \underline{48}$$

*Be sure to make the same change to **both** sides of the equal sign.

Solve each equation to find the value of the variable.

1. $\frac{x}{4} - 3 = 2$

2. $3a + 4 = 16$

3. $\frac{c}{2} - 5 = 25$

4. $8b + 5 = 29$

5. $5d - 11 = 24$

6. $\frac{e}{4} - 2 = 5$

Two-Step Equations

7. $9f + 3 = 21$

8. $\frac{g}{3} - 2 = 1$

9. $6h + 16 = 46$

10. $\frac{i}{5} + 9 = 17$

11. $8j + 5 = 61$

12. $3k - 2 = 10$

13. $\frac{m}{4} - 2 = 6$

14. $3n - 4 = 20$

15. $\frac{p}{6} + 5 = 8$

ANSWER KEY

Two-Step Equations

1. $\frac{x}{4} - 3 = 2$

$x = 20$

2. $3a + 4 = 16$

$a = 4$

3. $\frac{c}{2} - 5 = 25$

$c = 60$

4. $8b + 5 = 29$

$b = 3$

5. $5d - 11 = 24$

$d = 7$

6. $\frac{e}{4} - 2 = 5$

$e = 28$

7. $9f + 3 = 21$

$f = 2$

8. $\frac{g}{3} - 2 = 1$

$g = 9$

9. $6h + 16 = 46$

$h = 5$

10. $\frac{i}{5} + 9 = 17$

$i = 40$

11. $8j + 5 = 61$

$j = 7$

12. $3k - 2 = 10$

$k = 4$

13. $\frac{m}{4} - 2 = 6$

$m = 32$

14. $3n - 4 = 20$

$n = 8$

15. $\frac{p}{6} + 5 = 8$

$p = 18$