

Solve. Be sure to simplify first! Show your work.

1)  $2(x + 3) = 10$

$$\begin{array}{r} 2x + 6 = 10 \\ -6 \quad -6 \\ \hline 2x = 4 \\ \frac{2x}{2} = \frac{4}{2} \quad \boxed{x=2} \end{array}$$

2)  $3(2x - 1) = 9$

$$\begin{array}{r} 6x - 3 = 9 \\ +3 \quad +3 \\ \hline 6x = 12 \\ \frac{6x}{6} = \frac{12}{6} \quad \boxed{x=2} \end{array}$$

3)  $2(6 + 2a) = 24$

$$\begin{array}{r} 12 + 4a = 24 \\ -12 \quad -12 \\ \hline 4a = 12 \\ \frac{4a}{4} = \frac{12}{4} \\ \boxed{a=3} \end{array}$$

4)  $5(x - 2) = 0$

$$\begin{array}{r} 5x - 10 = 0 \\ +10 \quad +10 \\ \hline 5x = 10 \\ \frac{5x}{5} = \frac{10}{5} \\ \boxed{x=2} \end{array}$$

5)  $6(x + 1) = 36$

$$\begin{array}{r} 6x + 6 = 36 \\ -6 \quad -6 \\ \hline 6x = 30 \\ \frac{6x}{6} = \frac{30}{6} \\ \boxed{x=5} \end{array}$$

6)  $2(x - 5) = 10$

$$\begin{array}{r} 2x - 10 = 10 \\ +10 \quad +10 \\ \hline 2x = 20 \\ \frac{2x}{2} = \frac{20}{2} \\ \boxed{x=10} \end{array}$$

7)  $3(y + 4) = 27$

$$\begin{array}{r} 3y + 12 = 27 \\ -12 \quad -12 \\ \hline 3y = 15 \\ \frac{3y}{3} = \frac{15}{3} \\ \boxed{y=5} \end{array}$$

8)  $4(x - 3) = 44$

$$\begin{array}{r} 4x - 12 = 44 \\ +12 \quad +12 \\ \hline 4x = 56 \\ \frac{4x}{4} = \frac{56}{4} \\ \boxed{x=14} \end{array}$$

Solve. Be sure to simplify first! Show your work.

9)  $x + 3x - 2x = 12$

~~11x~~

$$\frac{2x}{2} = \frac{12}{2}$$

$$\boxed{x = 6}$$

10)  $4a - 2a + a = 42$

$$\frac{3a}{3} = \frac{42}{3}$$

$$\boxed{a = 14}$$

11)  $s - 3 + 4s = 12$

$$\begin{array}{r} 5s - 3 = 12 \\ +3 \quad +3 \\ \hline \end{array}$$

$$\frac{5s}{5} = \frac{15}{5} \quad \boxed{s = 3}$$

12)  $5x + 2x - 7 = 42$

$$\begin{array}{r} 7x - 7 = 42 \\ +7 \quad +7 \\ \hline \end{array}$$

$$\frac{7x}{7} = \frac{49}{7} \quad \boxed{x = 7}$$

13)  $8 = n + 3n - 24$

$$\begin{array}{r} 8 = 4n - 24 \\ +24 \quad +24 \\ \hline \end{array}$$

$$\frac{32}{4} = \frac{4n}{4} \quad \boxed{n = 8}$$

14)  $46 = 5x + x + 16$

$$\begin{array}{r} 46 = 6x + 16 \\ -16 \quad -16 \\ \hline \end{array}$$

$$\frac{30}{6} = \frac{6x}{6} \quad \boxed{x = 5}$$

15)  $9a + 2 - 6a = 35$

$$\begin{array}{r} 3a + 2 = 35 \\ -2 \quad -2 \\ \hline \end{array}$$

$$\frac{3a}{3} = \frac{33}{3} \quad \boxed{a = 11}$$

16)  $9a - 4a + a = 42$

$$\frac{6a}{6} = \frac{42}{6}$$

$$\boxed{a = 7}$$

Solve:

17)  $\frac{3a}{3} = \frac{15}{3}$

$$\boxed{a = 5}$$

18)  $4 \cdot \frac{x}{4} = 12 \cdot 4$

$$\boxed{x = 48}$$

19)  $x - 17 = 3$

$$\begin{array}{r} x - 17 = 3 \\ +17 \quad +17 \\ \hline \end{array}$$

$$\boxed{x = 20}$$