

### 10.1 Key Concepts 3 Solving Two-Step Equations Worked Example

**Example:** Solve for  $x$ :  $5x + 9 = -1$ .

**Solution:** Subtract 9 from both sides of the equation. Then, divide both sides by 5.

$$\begin{aligned}5x + 9 &= -1 \\5x + 9 - 9 &= -1 - 9 \\5x &= -10 \\\frac{5x}{5} &= \frac{-10}{5} \\x &= -2\end{aligned}$$

**Practice:**

1. Solve for  $y$ :  $\frac{y}{2} + 1 = -5$ .

2. Solve for  $r$ :  $-5r - 3 = 12$ .

Answers: 1.  $y = -12$ , 2.  $r = -3$