1 EXAMPLE **Solve the formula for the volume of a rectangular prism $V = \ell wh$ for width w in terms of its volume V, length ℓ, and its height h.**

$V = \ell wh$

$\frac{V}{\ell} = \frac{\ell wh}{\ell}$ Divide each side by ℓ, $\ell \neq 0$.

$\frac{V}{\ell} = wh$ Simplify.

$\frac{V}{\ell h} = \frac{wh}{h}$ Divide each side by h, $h \neq 0$ to get w alone on one side of the equation.

$\frac{V}{\ell h} = w$ Simplify.

2 EXAMPLE **Solve $y = 4x - 3$ for x.**

$y + 3 = 4x - 3 + 3$ Add 3 to each side.

$y + 3 = 4x$ Simplify.

$\frac{y + 3}{4} = \frac{4x}{4}$ Divide each side by 4.

$\frac{y + 3}{4} = x$ Simplify.

3 EXAMPLE **Solve $z - br = p$ for b in terms of z, r, and p.**

$z - br - z = p - z$ Subtract z from each side.

$-br = p - z$ Combine like terms.

$\frac{-br}{-r} = \frac{p-z}{-r}$ Divide each side by $-r$.

$b = -\frac{p - z}{r}$ Simplify.