

# Solving Two-Step Equations

Multiplication & Division - Negative Coefficients

## ANSWER KEY

Solve the equations.

$$(1) \quad 8 - 2x = 38$$

$$\begin{aligned} -2x &= 30 \\ x &= -15 \end{aligned}$$

$$(2) \quad -12 + \frac{x}{6} = -29$$

$$\begin{aligned} \frac{x}{6} &= -17 \\ x &= -102 \end{aligned}$$

$$(3) \quad 9 = 4 + \frac{x}{21}$$

$$\begin{aligned} 5 &= \frac{x}{21} \\ 105 &= x \end{aligned}$$

$$(4) \quad 45 = -87 - 11x$$

$$\begin{aligned} 132 &= -11x \\ -12 &= x \end{aligned}$$

$$(5) \quad -6x - 41 = -173$$

$$\begin{aligned} -6x &= -132 \\ x &= 22 \end{aligned}$$

$$(6) \quad \frac{x}{20} + 2 = 5$$

$$\begin{aligned} \frac{x}{20} &= 3 \\ x &= 60 \end{aligned}$$

$$(7) \quad -2 = 1 + \frac{x}{24}$$

$$\begin{aligned} -3 &= \frac{x}{24} \\ -72 &= x \end{aligned}$$

$$(8) \quad 8x - 40 = -216$$

$$\begin{aligned} 8x &= -176 \\ x &= -22 \end{aligned}$$

$$(9) \quad -9x - 137 = 88$$

$$\begin{aligned} -9x &= 225 \\ x &= -25 \end{aligned}$$

$$(10) \quad 7 = 3 + \frac{x}{-24}$$

$$\begin{aligned} 4 &= \frac{x}{-24} \\ -96 &= x \end{aligned}$$

$$(11) \quad -11 + \frac{x}{-4} = 3$$

$$\begin{aligned} \frac{x}{-4} &= 14 \\ x &= -56 \end{aligned}$$

$$(12) \quad \frac{x}{-25} + 2 = -1$$

$$\begin{aligned} \frac{x}{-25} &= -3 \\ x &= 75 \end{aligned}$$

$$(13) \quad 232 = 76 + 6x$$

$$\begin{aligned} 156 &= 6x \\ 26 &= x \end{aligned}$$

$$(14) \quad -7 = -3 + \frac{x}{-16}$$

$$\begin{aligned} -4 &= \frac{x}{-16} \\ 64 &= x \end{aligned}$$

$$(15) \quad -16x + 124 = 300$$

$$\begin{aligned} -16x &= 176 \\ x &= -11 \end{aligned}$$