

b)

$$0.12y - 1 = 0.095y - 0.9$$

Write each decimal so that it has three decimal places.

$$0.120y - 1.000 = 0.095y - 0.900$$

Prepare the equation by placing parentheses around each side. Multiply each side by 1,000.

$$1,000(0.120y - 1.000) = 1,000(0.095y - 0.900)$$

Distribute. Multiplying by 1,000 will clear all decimals.

$$120y - 1,000 = 95y - 900$$

Reduce this to standard form by adding $-95y$ to each side.

$$\underline{-95y} \quad \quad \quad = \underline{-95y}$$

$$25y - 1,000 = -900$$

Isolate the variable term by adding 1,000 to each side.

$$\underline{+1,000} \quad \quad \quad = \underline{+1,000}$$

$$25y = 100$$

Divide each side by 25.

$$\frac{25y}{25} = \frac{100}{25}$$

$$100 \div 25 = 4$$

$$y = 4$$

Verify $y = 4$. ↗

You finish it:

Verify that 4 is the solution.

You Try It 4

Solve the equation by first clearing the decimals. Verify the solution. Use Example 6 as a guide.

a) $2w - 0.4 = 1 + 1.8w$

b) $0.17k - 0.43 = 0.25k + 0.05$