

2-8 Division Equations

Pg. 85 3-21-18

Mar 15-9:00 AM

Multiplication is the inverse of division.
When an equation contains division, use multiplication to "undo" the division.

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Solve the equation. Check your answer.

$$\frac{x}{7} = 5$$

$$7 \cdot \frac{x}{7} = 5 \cdot 7$$

$$\frac{7}{7} = 1 \quad x = 35$$

$$\checkmark: \frac{35}{7} = 5$$

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Solve the equation. Check your answer.

$$13 = \frac{p}{6}$$

$$6 \cdot 13 = \frac{p \cdot 6}{6}$$

$$\begin{array}{r} 13 \\ \times 6 \\ \hline 78 \end{array} \quad 78 = p$$

$$\checkmark: \frac{78}{6} = 13$$

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Solve the equation. Check your answer.

$$\frac{x}{2} = 9$$

$$2 \cdot \frac{x}{2} = 9 \cdot 2$$

$$x = 18$$

$$\checkmark: \frac{18}{2} = 9$$

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Solve the equation. Check your answer.

$$72 = \frac{p}{4}$$

$$4 \cdot \frac{p}{4} = 72 \cdot 4$$

$$\begin{array}{r} 72 \\ \times 4 \\ \hline 288 \end{array} \quad p = 288$$

$$\frac{288}{4} = 72$$

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Solve each equation. Check your answers.

A $\frac{y}{5} = 4$

$$5 \cdot \frac{y}{5} = 4 \cdot 5$$

$$y = 20$$

$$\checkmark: \frac{20}{5} = 4$$

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B $12 = \frac{z}{4}$

$$4 \cdot 12 = \frac{z \cdot 4}{4}$$

$$z = 48$$

$$\checkmark: 12 = \frac{48}{4}$$

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At Elk Meadows Park an aspen tree is one-third the height of a pine tree.

height of aspen = $\frac{\text{height of pine}}{3}$

The aspen tree is 14 feet tall. How tall is the pine tree?

Let h represent the height of the pine tree.

$$3 \cdot 14 = \frac{h \cdot 3}{3}$$

$$\begin{array}{r} 14 \\ \times 3 \\ \hline 42 \end{array} \quad 42 = h$$

ft.

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Jamie weighs one-half as much as her father.

Jamie's weight = $\frac{95 \cdot \text{father's weight}}{2}$

Jamie weighs 95 pounds. How many pounds does her father weigh?

Let w represent her father's weight. libra

$$2 \cdot 95 = \frac{w \cdot 2}{2}$$

$$w = 190 \text{ lb}$$

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Solve each equation. Check your answers.

1. $\frac{x}{10} = 7$ $10 \cdot \frac{x}{10} = 7 \cdot 10$ $4 \cdot 8 = \frac{x \cdot 4}{4}$

2. $8 = \frac{x}{4}$ $x = 70$ $x = 32$

3. $\frac{x}{9} = 1$ $\checkmark: \frac{70}{10} = 7$ $\checkmark: 8 = \frac{32}{4}$

4. $\frac{x}{15} = 7$

5. The area of Sherry's flower garden is one-fourth the area of her vegetable garden. The area of the flower garden is 17 square feet. Let x represent the area of her vegetable garden. Find the area of her vegetable garden?

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