

Warm - Up  
May 9th

Solve and Check

$$9 \cdot 2 = \frac{-3x}{9}$$

$$\frac{18}{-3} = \frac{-\cancel{3} \cdot x}{\cancel{3}}$$

$$-6 = x$$

$$2 = \frac{-3(+6)}{9}$$

## 5.2.1 Using Multiplicative Properties to Solve

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Procedure - Solving Linear Equations with a Single Variable Term

Property - The Multiplication Property of Equality

Property - The Division Property of Equality

## Example

Solve and Check

$$\begin{array}{r} \cancel{3}w = 24 \\ \cancel{3} \quad \cancel{3} \\ w = 8 \end{array}$$

$$\begin{array}{l} 3(8) = 24 \\ 24 = 24 \quad \checkmark \end{array}$$

## Example

Solve and Check

$$\frac{-x}{-1} = \frac{18}{-1} \quad -(-18) \stackrel{?}{=} 18$$
$$x = -18$$

## Example

Solve and Check

$$\begin{array}{l} 4a = 10 \cdot 2 \\ 2 \quad \cancel{4}a = \cancel{2}0 \\ \cancel{2} \cdot \cancel{2}a = 10 \\ \cancel{2}a = 10 \\ a = 5 \end{array} \quad \left| \quad \begin{array}{l} \frac{4(5)}{2} \stackrel{?}{=} 10 \\ \frac{20}{2} \stackrel{?}{=} 10 \\ 10 = 10 \end{array} \right.$$

### Example

Solve and Check

$$\frac{5}{7} \cdot \frac{14}{1} = \frac{5 \cdot 2 \cdot \cancel{7}}{\cancel{7}}$$

$$\cancel{14} \cdot \frac{-5x}{14} = \frac{5}{7} \cdot \frac{14}{1}$$

$$\textcircled{10}$$

$$\frac{-5x}{\cancel{14}} = \frac{10}{\cancel{14}}$$

$$\textcircled{x = -2}$$

$$\frac{-5(-2)}{14} \stackrel{?}{=} \frac{5}{7}$$

$$\frac{10}{14} \stackrel{?}{=} \frac{5}{7}$$

$$\frac{\cancel{2} \cdot 5}{\cancel{2} \cdot 7} = \frac{5}{7}$$

$$\textcircled{\checkmark}$$

Homework (due ~~Fri~~ Tue)  
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