

3.3 (pg. 95) Solving Equations:  $ax = c$ Division Property of Equality

If you divide each side of an equation by the same NON-ZERO number, the two sides remain equal.

Reminder: You cannot divide any number by 0.

3.3 (pg. 95) Solving Equations:  $ax = c$ 

Example: Solve each equation. Check your solution.

$$\begin{array}{l} -7x = 56 \\ \div -7 \quad \div -7 \end{array}$$

$$\boxed{x = -8}$$

$$\begin{array}{l} -7x = 56 \\ \hline -7 \quad \hline -7 \\ x = -8 \end{array}$$

3.3 (pg. 95) Solving Equations:  $ax = c$ 

Example: Solve each equation. Check your solution.

$$\frac{-2p}{-2} = \frac{-38}{-2}$$

$$p = 19$$

3.3 (pg. 95) Solving Equations:  $ax = c$ 

Example: Solve each equation. Check your solution.

$$\frac{-68}{17} = \frac{17c}{17}$$

$$-4 = c$$

3.3 (pg. 95) Solving Equations:  $ax = c$ 

Example: Solve each equation. Check your solution.

$$\begin{array}{r} -27q = 81 \\ \hline -27 \quad -27 \end{array}$$

$$q = -3$$

3.3 (pg. 95) Solving Equations:  $ax = c$ 

Example: Solve each equation. Check your solution.

$$\begin{array}{r} -180 = 12f \\ \hline 12 \quad 12 \end{array}$$

$$-15 = f$$

3.3 (pg. 95) Solving Equations:  $ax = c$ 

Example: Solve each equation. Check your solution.

$$-85 = -r$$

$$\frac{-85}{-1} = \frac{-1r}{-1}$$

$$85 = r$$

3.4 (pg. 98) Solving Equations:  $x \div a = b$ Multiplication Property of Equality

If you multiply each side of an equation by the same number, the two sides remain equal.

3.4 (pg. 98) Solving Equations:  $x \div a = b$ 

Example: Solve each equation. Check your solution.

$$14 = \frac{a}{-7} \cdot -7$$

$$\boxed{-98 = a}$$

3.4 (pg. 98) Solving Equations:  $x \div a = b$ 

Example: Solve each equation. Check your solution.

$$-12 \cdot \frac{k}{-12} = 13 \cdot -12$$

$$\boxed{k = -156}$$

$$\begin{array}{r} 13 \\ \times 12 \\ \hline 26 \\ 130 \\ \hline 156 \end{array}$$

3.4 (pg. 98) Solving Equations:  $x \div a = b$ 

Example: Solve each equation. Check your solution.

$$-21 \cdot \frac{r}{-21} = -6 \cdot -21$$

$$r = 126$$

3.4 (pg. 98) Solving Equations:  $x \div a = b$ 

Example: Solve each equation. Check your solution.

$$-15 = \frac{f}{14} \cdot 14$$

$$-210 = f$$

$$\begin{array}{r} 2 \\ 15 \\ \times 14 \\ \hline 160 \\ 150 \\ \hline 210 \end{array}$$

3.4 (pg. 98) Solving Equations:  $x \div a = b$ 

Example: Solve each equation. Check your solution.

$$-32 = \frac{c}{22} \cdot 22$$

$$\boxed{-704 = c}$$

$$\begin{array}{r} 32 \\ \times 22 \\ \hline 64 \\ 640 \\ \hline 704 \end{array}$$

3.4 (pg. 98) Solving Equations:  $x \div a = b$ 

Example: Solve each equation. Check your solution.

$$\frac{x}{+3} = 136$$

$$-3 \cdot \frac{-x}{-3} = 136 \cdot -3$$

$$\begin{array}{r} 136 \\ \times 3 \\ \hline 408 \end{array}$$

$$3 \cdot \frac{x}{3} = 136 \cdot 3$$

$$\boxed{x = 408}$$

$$\begin{array}{r} -x = -408 \\ -1x = -408 \\ \hline \phantom{-1}x = \phantom{-}408 \end{array}$$

$$\boxed{x = 408}$$

3.4 Solving Equations  $x \div a = b$ .notebook