

## Unit 5 Objective 5 Remediation

### Solving Equations by Using Division

**Division Property of Equality:** If each side of an equation is divided by the same nonzero number, the results of both sides are equal.

**Example 1:** Solve the equation  $11x = -55$  by using the Division Property of Equality.

Solution:  $11x = -55$

$$\frac{11x}{11} = \frac{-55}{11}$$

$$x = -5$$

Remember to apply the rules for dividing real numbers.

Don't forget, you can always check your solution for accuracy.

**Example 2:** Solve the equation  $-15.5 = -3.1y$  by using the Division Property of Equality.

Solution:  $-15.5 = -3.1y$

$$\frac{-15.5}{-3.1} = \frac{-3.1y}{-3.1}$$

$$5 = y \text{ or } y = 5$$

Remember to apply the rules for dividing real numbers.

Don't forget, you can always check your solution for accuracy.

**Example 3:** Solve the equation  $2d = \frac{1}{3}$  by using the Division Property of Equality.

Solution:  $2d = \frac{1}{3}$

$$\frac{2d}{2} = \frac{\frac{1}{3}}{2}$$

$$d = \frac{1}{3} \cdot \frac{1}{2}$$

$$d = \frac{1}{6}$$

Remember to apply the rules for dividing real numbers.

Don't forget, you can always check your solution for accuracy.

**Example 4:** Solve the equation  $3 = -6x$  by using the Division Property of Equality.

Solution:  $3 = -6x$

$$\frac{3}{-6} = \frac{-6x}{-6}$$

$$-\frac{1}{2} = x$$

Remember to apply the rules for dividing real numbers.

Don't forget, you can always check your solution for accuracy.

**Try These**

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1.  $-11 = 55m$

2.  $-70 = -7y$

3.  $-4.2a = -12.6$

4.  $-6d = -42$

5.  $8y = -40$

6.  $18x = -216$

7.  $11.4 = 5.7x$

8.  $-4.9y = -9.8$

9.  $-7a = 49$

10.  $-85 = -5s$

11.  $3y = 16$

12.  $-4n = -22$

13.  $-5x = 22$

14.  $4.50h = 101.25$