Lesson 5.6 Solving 1-Step Equations: Multiplication & Division

Division Property of Equality

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

$$3y = 21$$

To undo multiplication by 3, divide by 3.

$$\frac{3y}{3} = \frac{21}{3}$$
$$y = 7$$

Multiplication Property of Equality

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

$$\frac{a}{4} = 4$$

To undo division by 4, multiply by 4.

$$\frac{a}{4} \times \frac{4}{1} = 5 \times 4$$
$$a = 20$$

Write the operation that would undo the operation in each equation.

	a		b

1. $5 \times n = 40$ _____ $\frac{y}{5} = 80$ _____

2. $\frac{x}{2} = 8$ _____ $a \times 7 = 42$ _____

Solve each equation.

a   b   c

3. $3 \times a = 9$ _____ $\frac{x}{5} = 5$ _____ $\frac{n}{4} = 3$ _____

4. $\frac{x}{3} = 3$ _____ $n \times 4 = 4$ _____ $3 \times y = 24$ _____

5. $5 \times b = 10$ _____ $\frac{b}{8} = 2$ _____ $4 \times a = 20$ _____

6. $\frac{m}{3} = 1$ _____ $8 \times n = 20$ _____ $\frac{x}{5} = 2$ _____

7. $4 \times n = 1$ _____ $\frac{n}{4} = 5$ _____ $\frac{b}{3} = 27$ _____

8. $n \times 15 = 30$ _____ $\frac{n}{4} = 10$ _____ $n \times 12 = 36$ _____

9. $\frac{n}{18} = 2$ _____ $n \times 3 = 18$ _____ $n \times 2 = 20$ _____

10. $\frac{n}{2} = 20$ _____ $\frac{n}{16} = 1$ _____ $n \times 3 = 3$ _____

11. $5 \times b = 30$ _____ $\frac{b}{5} = 30$ _____ $n \times 8 = 24$ _____

12. $\frac{n}{4} = 1$ _____ $\frac{b}{2} = 2$ _____ $n \times 6 = 48$ _____

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Solve each equation.

	a	**b**	**c**
1.	$2 \times d = 18$ _____	$a \times 4 = 20$ _____	$5 \times n = 30$ _____
2.	$y \div 3 = 4$ _____	$t \div 9 = 3$ _____	$\frac{a}{5} = 3$ _____
3.	$8 \times s = 64$ _____	$p \times 16 = 16$ _____	$7 \times r = 42$ _____
4.	$\frac{n}{5} = 10$ _____	$n \div 3 = 12$ _____	$a \div 8 = 6$ _____
5.	$25 = 5 \times d$ _____	$0 = a \times 57$ _____	$32 = b \times 2$ _____
6.	$19 = \frac{x}{1}$ _____	$7 = b \div 4$ _____	$9 = \frac{c}{7}$ _____

Write an equation for each problem. Then, solve the equation.

7. Taryn practiced piano the same amount of time every day for 6 days. If she practiced a total of 12 hours, how many hours did she practice each day?

_____ She practiced _____ hours each day.

8. A group of friends decided to equally share a package of trading cards. If there were 48 cards in the package and each person received 12, how many friends were in the group?

_____ There were _____ friends in the group.

9. Twenty-five cars can take the ferry across the river at one time. If 150 cars took the ferry, and it was full each time, how many times did the ferry cross the river?

_____ The ferry crossed the river _____ times.