



Name \_\_\_\_\_

## Solving Multiplication and Division Equations

**R** 2-7

Multiplication and division are inverse operations. Use division to “undo” multiplication. Use multiplication to “undo” division.

To “undo” multiplication, divide **both** sides by the same nonzero number.

$6z = 114$  To undo multiplying by 6, divide both sides by 6.

$\frac{6z}{6} = \frac{114}{6}$  Since  $\frac{6}{6} = 1$ ,  $z$  is by itself on one side of the equal sign.

$z = \frac{114}{6}$  Solve for  $z$ .

$z = 19$

Check your answer by replacing the variable with your answer:

$$6z = 114 \rightarrow 6 \times 19 = 114 \rightarrow 114 = 114 \checkmark$$

To “undo” division, multiply **both** sides by the same nonzero number.

$\frac{a}{11} = 58$  To undo dividing by 11, multiply both sides by 11.

$\frac{a}{11} \times 11 = 58 \times 11$  Since  $\frac{11}{11} = 1$ ,  $a$  is by itself on one side of the equal sign.

$a = 58 \times 11$  Solve for  $a$ .

$a = 638$

Check your answer by replacing the variable with your answer:

$$\frac{a}{11} = 58 \rightarrow \frac{638}{11} = 58 \rightarrow 58 = 58 \checkmark$$

1.  $7w = 84$

$$\frac{7w}{7} = \frac{84}{7}$$

$$w = \frac{84}{7}$$

$$w =$$

2.  $d \div 21 = 8$

$$\frac{d}{21} \times \quad = 8 \times$$

$$d = 8 \times$$

$$d =$$

3.  $29f = 377$

4.  $\frac{h}{4.6} = 35$

5.  $0.09p = 0.117$

6.  $c \div 18 = 58$

7.  $960 = 12k$

8.  $1.7 = \frac{b}{0.66}$

9.  $194.7 = 33q$