

## LESSON

## 1.7

# Multiplying *and* Dividing Integers

## Review Vocabulary

mean, p. 39

## BEFORE

You multiplied and divided decimals.

## Now

You'll multiply and divide integers.

## WHY?

So you can find the position of a submarine, as in Ex. 27.

$\left\{ \begin{array}{l} \text{pos} \\ \text{neg} \end{array} \right. \times \begin{array}{l} \text{pos} \\ \text{neg} \end{array} \rightarrow \begin{array}{l} \text{pos} \\ \text{pos} \end{array}$   
 $\begin{array}{l} \text{pos} \\ \text{neg} \end{array} \div \begin{array}{l} \text{pos} \\ \text{neg} \end{array} \rightarrow \begin{array}{l} \text{pos} \\ \text{neg} \end{array}$

$$80 - 5 - 40 - 15$$

$$C = \frac{.5(F - 32)}{\cancel{1.8}}$$

## LESSON

## 1.7

Name \_\_\_\_\_ Date \_\_\_\_\_

**Practice A**

For use with pages 41–46

Tell whether the product or quotient is *positive* or *negative*. You do not need to find the product or quotient.

1.  $-26(3)$

2.  $-9(-12)$

3.  $20(-11)$

4.  $\frac{437}{-19}$

5.  $\frac{-448}{-32}$

6.  $-357 \div 21$

$$-26 \cdot 3 \rightarrow \text{neg}$$

$$20 \cdot -11 \rightarrow \text{neg}$$

$$\frac{-448}{-32} \rightarrow \text{pos}$$

$$\frac{-}{-}$$

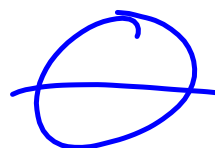
Find the product or quotient.

7.  $-8(-13)$

$$\begin{array}{r} -8 \cdot 13 \\ 104 \end{array}$$

8.  $-10(17)$

9.  $0(-59)$



**10.**  $6(-15)$

$$6-15 \\ -90$$

**11.**  $-12(5)$

**12.**  $-9(-14)$

$$126$$

**13.**  $75 \div (-3)$

$$\begin{array}{r} 75 \div -3 \\ -25 \end{array}$$

**14.**  $0 \div (-47)$

**15.**  $39 \div (-13)$

$$\begin{array}{r} 39 \div -13 \\ -3 \end{array}$$

**16.**  $\frac{-126}{-9}$

**17.**  $\frac{-84}{21}$

**18.**  $\frac{120}{-24}$

$$\begin{array}{r} -81 \div 21 \\ -41 \end{array}$$

Simplify.

19.  $9(-11)(-4)$

20.  $-8(-12)(-3)$

21.  $14(-20)(-7)$

$$\begin{array}{l} 9 \cdot 11 \cdot 4 \\ (-99 \cdot -41) \\ 396 \end{array}$$

$$\begin{array}{l} 14 \cdot 20 \cdot 7 \\ 280 \cdot 7 \\ 1950 \end{array}$$



**22.**  $120 \div (-4) \div (-5)$

**23.**  $-240 \div (-16) \div 5$

**24.**  $90 \div (-3) \div 3$

$$-240 \div -16 \div 5$$

$$15 \div 5$$

$$3$$

25.  $-3(18) \div 6$

26.  $-20(-15) \div 5$

27.  $10(27) \div (-15)$

$$\begin{aligned} &-3 \cdot 18 \div 6 \\ &-54 \div 6 \end{aligned}$$

$$\begin{array}{r} -9 \\ 15 \\ \hline 120 \end{array}$$

$$\begin{aligned} &10 \cdot 27 \div 15 \\ &270 \div 15 \\ &-18 \end{aligned}$$

28. The table shows a town's average daily temperature each month for 1 year. Find the mean average daily temperature.

|                    |                       |                      |                      |                      |                      |                      |
|--------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Month</b>       | Jan                   | Feb                  | Mar                  | Apr                  | May                  | Jun                  |
| <b>Temperature</b> | $-15^{\circ}\text{F}$ | $-9^{\circ}\text{F}$ | $21^{\circ}\text{F}$ | $44^{\circ}\text{F}$ | $54^{\circ}\text{F}$ | $67^{\circ}\text{F}$ |

|                    |                      |                      |                      |                      |                      |                      |
|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Month</b>       | Jul                  | Aug                  | Sep                  | Oct                  | Nov                  | Dec                  |
| <b>Temperature</b> | $71^{\circ}\text{F}$ | $71^{\circ}\text{F}$ | $63^{\circ}\text{F}$ | $58^{\circ}\text{F}$ | $34^{\circ}\text{F}$ | $21^{\circ}\text{F}$ |

Sum  
—  
#

(-)

÷ 12

- 29.** You have 25 shares of stock A, 10 shares of stock B, and 5 shares of stock C. In one day, the price per share changed by \$6 for stock A,  $-\$7$  for stock B, and  $-\$9$  for stock C. Find the total change in value of your stock.

## Multiplying Integers

### Words

The product of two integers with the same sign is positive.

The product of two integers with different signs is negative.

The product of any integer and 0 is 0.

### Numbers

$$2(4) = 8 \qquad -2(-4) = 8$$

$$2(-4) = -8 \qquad -2(4) = -8$$

$$2(0) = 0 \qquad -2(0) = 0$$

## Dividing Integers

### Words

The quotient of two integers with the same sign is positive.

The quotient of two integers with different signs is negative.

The quotient of 0 and any nonzero integer is 0.

### Numbers

$$8 \div 4 = 2 \quad -8 \div (-4) = 2$$

$$-8 \div 4 = -2 \quad 8 \div (-4) = -2$$

$$0 \div 4 = 0 \quad 0 \div (-4) = 0$$