

**EXAMPLES** Divide Integers**MAIN IDEA**

- Divide integers.

**KEY CONCEPT**

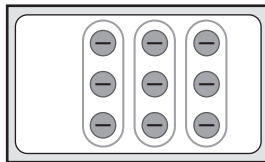
**Dividing Integers** The quotient of two integers with different signs is negative.

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

**Divide.**

$$1 \quad -9 \div 3$$

Separate  negative counters into  equal-size groups.

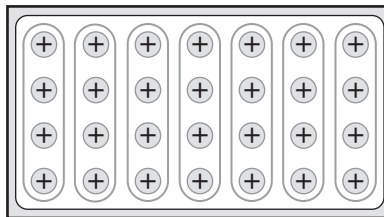


There are 3 groups of 3 negative counters.

So,  $-9 \div 3 =$  .

$$1 \quad 28 \div 7$$

Separate  positive counters into  equal-size groups.



There are 7 groups of 4 positive counters.

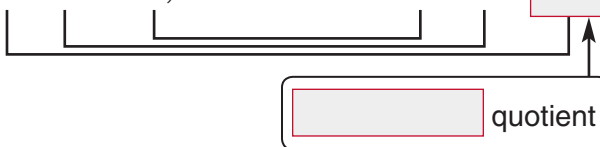
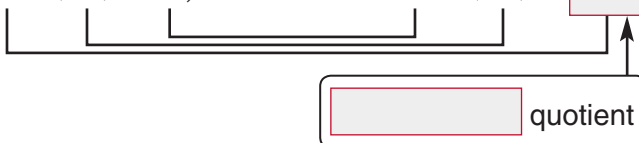
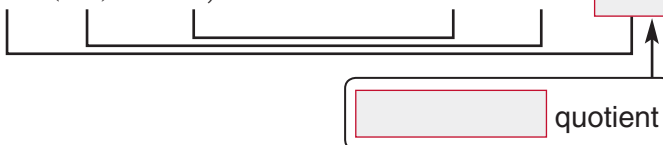
So,  $28 \div 7 =$  .

**Check Your Progress**

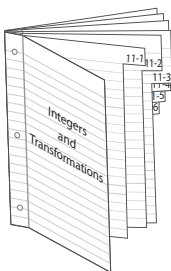
**Divide. Use counters if necessary.**

a.  $-16 \div 4$

b.  $24 \div 8$

**EXAMPLES** Divide Integers**3** Find  $-16 \div 2$ .Since  $-8 \times 2 = -16$ , it follows that  $-16 \div 2 =$  .**4** Find  $36 \div (-6)$ .Since  $-6 \times (-6) = 36$ , it follows that  $36 \div (-6) =$  .**5** Find  $-30 \div (-5)$ .Since  $6 \times (-5) = -30$ , it follows that  $-30 \div -5 =$  .**FOLDABLES****ORGANIZE IT**

Under the Lesson 11-6 tab of your Foldable, record what you learn about dividing integers. Include two of your own examples and find the quotients.

**Check Your Progress** Divide. Work backward if necessary.**a.**  $-36 \div 9$ 

**b.**  $14 \div (-2)$ 

**c.**  $-42 \div (-6)$

EXAMPLE

**6 TEST EXAMPLE** A scuba diver descended a total of 56 feet below the surface of the ocean in 4 minutes. If the diver descended at a constant rate, which integer gives the feet descended each minute?

- A -14
- C 7
- B -7
- D 14

Read the Item

You need to find the feet per minute the diver descended. Represent the total number of feet below the surface of the ocean using .

Solve the Item

Since  $-56 \div 4 =$  , the answer is .

**Check Your Progress** **MULTIPLE CHOICE** Roberto missed a total of 6 points on a science quiz. If he missed the same number of points on each of 3 problems, which integer represents the number of points missed for each problem?

- F 6
- H -2
- G 2
- J -6

**HOMEWORK  
ASSIGNMENT**

Page(s):

Exercises: