

Multiply and Divide Positive and Negative Integers

Solve the problems.

- 1 A whale dives at a speed of 3 feet per second. What is the change in the position of the whale relative to where it started after 12 seconds?

A -36 feet C 4 feet
B -4 feet D 36 feet

Will your answer be positive or negative?



- 2 Tell whether each equation is *True* or *False*.

a. $-7 \cdot 8 = 7 \cdot (-8)$ True False
b. $-7 \cdot (-8) = 7 \cdot 8$ True False
c. $7 \cdot (-8) = 7 \cdot 8$ True False

How can the signs of the factors in each multiplication equation help you solve this problem?



- 3 Myra withdraws the same amount of money from her checking account each week. In 4 weeks, she withdraws a total of \$200. Which equation represents the amount of money her account changes by each week?

A $-200 \div (-4) = 50$
B $-200 \div 4 = -50$
C $-200 \div 4 = 50$
D $-200 \div (-4) = -50$

What can the signs of the numbers in a division problem tell you about the quotient?



Sam chose **C** as the correct answer. How did he get that answer?



Solve.

4 Kain made two number cubes to use in a game. The faces on each cube contain the numbers 1, -2 , 3, -4 , 5, and -6 . After Kain rolls the two cubes, he multiplies the two numbers.

a. Give an example of two numbers that Kain could roll to get a positive product.

b. Give an example of two numbers that Kain could roll to get a negative product.

What is true about the signs of two factors if their product is positive?



5 Savannah solves each of the following problems as shown below.

a. $-6 \cdot 12 \div (-4) = 18$

b. $8 \cdot (-3) \div 6 = -4$

c. $-40 \cdot (-2) \div (-10) = 8$

d. $-7 \cdot 5 \cdot (-2) \div 5 = 14$

Are the answers correct? Explain any incorrect answers.

Remember to pay careful attention to the signs of numbers as you find quotients and products.

