

Standard 7.NS.2; 7.NS.3 (M–H)

More Multiplication

Let's review two important rules for multiplying any two rational numbers.

Rules for Multiplying Rational Numbers

- If the factors have the same sign, the product will be a positive number.

$8 \times 7 = 56$

$-8 \times -7 = 56$

- If the factors have different signs, the product will be a negative number.

$8 \times -7 = -56$

$-8 \times 7 = -56$

You can use these rules to multiply any two rational numbers.

On Your Own–1: Solve each problem below, and write each answer on the given line. Then, on a separate sheet of paper, sketch a number line for each problem. Each number line should represent the problem and its correct answer.

1. $-2 \times 3 =$ _____

5. $7 \times -1 =$ _____

2. $4 \times -2 =$ _____

6. $1 \times -7 =$ _____

3. $6 \times 3 =$ _____

7. $8 \times 2 =$ _____

4. $-5 \times 2 =$ _____

8. $8 \times -2 =$ _____

Working Together: Read the problem below. Work with a partner to write the equation and solve the problem. You will share your work with your classmates.

Each member of a golf team has a -8 at the end of the first round of play. If there are 6 members on the team, what is the team's combined score at the end of the first round?

Equation: _____

Answer: _____

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On Your Own-2: Solve the following multiplication problems. For problems #5–#10, write an equation first and then solve the problem.

1. $-7 \times 3 =$ _____

3. $-6.2 \times -4.1 =$ _____

2. $\frac{1}{2} \times -20 =$ _____

4. $-50 \times 4 =$ _____

5. At midnight, the outside temperature was 12°F in St. Paul, Minnesota. The temperature fell 2°F per hour from midnight until 7 a.m. What was the outside temperature at 7 a.m.?

Equation: _____

Answer: _____

6. A bank charges a 15¢ fee for each check a store manager writes on the company account. Each bank statement shows these check charges as a negative amount withdrawn from the account. Last month, the manager wrote 8 checks. What withdrawal amount for the checks appeared on that month's bank statement?

Equation: _____

Answer: _____

7. If Dylan deposits \$25 into his school lunch account each week, how much will he deposit in 8 weeks?

Equation: _____

Answer: _____

8. A teacher deducts 0.5 points for each misspelled word she finds in the essays written by her students. How many points will the teacher deduct from a paper with 7 misspelled words?

Equation: _____

Answer: _____

Challenge: It can be difficult to understand why multiplying two negative numbers yields a positive product. This is probably because we seldom multiply two negative numbers in our everyday lives. Try explaining this difficult idea on the number line below by "showing" why $-3 \times -4 = 12$. Can you do it?

