

Lesson Summary

The rules that apply for multiplying and dividing integers apply to rational numbers. We can use the products and quotients of rational numbers to describe real-world situations.

Problem Set

1. At lunch time, Benjamin often borrows money from his friends to buy snacks in the school cafeteria. Benjamin borrowed \$0.75 from his friend Clyde five days last week to buy ice cream bars. Represent the amount Benjamin borrowed as the product of two rational numbers; then, determine how much Benjamin owed his friend last week.
2. Monica regularly records her favorite television show. Each episode of the show requires 3.5% of the total capacity of her video recorder. Her recorder currently has 62% of its total memory free. If Monica records all five episodes this week, how much space will be left on her video recorder?

For Problems 3–5, find at least two possible sets of values that will work for each problem.

3. Fill in the blanks with two rational numbers (other than 1 and -1). $\underline{\hspace{1cm}} \times \left(-\frac{1}{2}\right) \times \underline{\hspace{1cm}} = -20$
What must be true about the relationship between the two numbers you chose?
4. Fill in the blanks with two rational numbers (other than 1 and -1). $-5.6 \times 100 \div 80 \times \underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = 700$
What must be true about the relationship between the two numbers you chose?
5. Fill in the blanks with two rational numbers. $\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = -0.75$
What must be true about the relationship between the two numbers you chose?

For Problems 6–8, create word problems that can be represented by each expression, and then represent each product or quotient as a single rational number.

6. $8 \times (-0.25)$
7. $-6 \div \left(1\frac{1}{3}\right)$
8. $-\frac{1}{2} \times 12$