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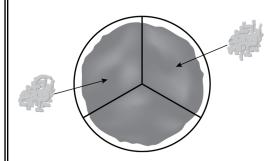
Multiplying and Dividing Rational Numbers

Dear Family,

Every family has a favorite pizza. Pizzas are unusual in that the ingredients are normally customized. The variety of meats, vegetables, sauces, crusts, herbs and spices produces a dizzying number of possibilities.

You and your student might enjoy making homemade pizza. First, you have to decide how many pizzas you need and how big each will be. If there are just two people eating, a small pizza might be just right. But for a large group, several pizzas may be needed.

You might estimate that each person will eat about one-fourth of a large pizza. Multiply that by the number of people eating and you know how many fourths are needed. From that, work with your student to figure out how many whole pizzas are needed.

Next you have to choose and prepare the toppings—maybe even customize the toppings for each person. As you choose the toppings, divide them so they will be evenly distributed. If two-thirds of your group wants green peppers on the pizza, divide the diced green peppers into two equal piles. Divide the pizza into three equal parts and put the piles on two of the parts. Talk with your student about a strategy for doing this when you have more than one pizza.

Finally, decide how you will cut the pizza. If there are two people, you probably will choose an even number of slices. If there are five people, you might choose to cut the pizza into ten slices, so that each person can have two slices. Count the number in your group and think of a good number of slices to use. What if you have more than one pizza?

Enjoy your pizza—and don't hold the math!

Multiplying and Dividing Rational Numbers (continued)

Lesson	Learning Target	Success Criteria
2.1 Multiplying Integers	Find products of integers.	• I can explain the rules for multiplying integers. • I can find products of integers with the same sign. • I can find products of integers with different signs.
2.2 Dividing Integers	Find quotients of integers.	• I can explain the rules for dividing integers. • I can find quotients of integers with the same sign. • I can find quotients of integers with different signs.
2.3 Converting Between Fractions and Decimals	Convert between different forms of rational numbers.	• I can explain the difference between terminating and repeating decimals. • I can write fractions and mixed numbers as decimals. • I can write decimals as fractions and mixed numbers.
2.4 Multiplying Rational Numbers	Find products of rational numbers.	• I can explain the rules for multiplying rational numbers. • I can find products of rational numbers with the same sign. • I can find products of rational numbers with different signs.
2.5 Dividing Rational Numbers	Find quotients of rational numbers.	• I can explain the rules for dividing rational numbers. • I can find quotients of rational numbers with the same sign. • I can find quotients of rational numbers with different signs.
2.6 Fractions, Decimals, and Percents	Rewrite fractions, decimals, and percents using different representations.	• I can write percents as decimals and decimals as percents. • I can write fractions as decimals and percents. • I can compare and order fractions, decimals, and percents.