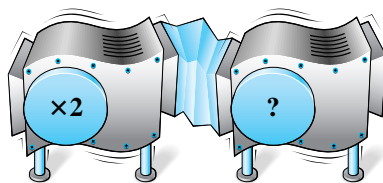


Family Letter

Dear Student and Family Members,

Our next chapter in mathematics extends the ideas of patterns to look at patterns in factors, multiples, fractions, decimals, and negative numbers—numbers you use every day.

You'll begin by imagining that you work at a factory that uses machines to stretch things like gum, strings, and spaghetti by the number shown on the front of the machine. For example, if you want a piece of licorice to be five times its original length, you could use a $\times 5$ machine. You can replace some machines with a hookup of machines to show the *factor pairs* of a number. For example, instead of a $\times 10$ machine, you could use a hookup of two machines. The first is a $\times 2$ machine. Can you guess what the second machine is?



There are many number patterns found in fractions and decimals. Here's a pattern shown by fractions with the same denominator. Try to predict the numbers in the next column.

Fraction	$\frac{1}{5}$	$\frac{2}{5}$	$\frac{3}{5}$	$\frac{4}{5}$	$\frac{5}{5}$	$\frac{6}{5}$	$\frac{7}{5}$?
Decimal	0.2	0.4	0.6	0.8	1.0	1.2	1.4	?

Knowing these patterns and the decimal equivalents of common fractions will make it easier for you to calculate with fractions and decimals.

Vocabulary This chapter also introduces many terms which may be new to you. Here are some of them:

absolute value
composite number
equivalent fractions
exponent
factor

greatest common factor
least common multiple
mixed number
multiple
opposites

prime factorization
prime number
relatively prime
repeating decimal

What can you do at home?

Fractions and decimals are everywhere. Ask your student to note the many ways fractions and decimals (other than money) are used in his or her day-to-day life.