



Dear Fifth Grade Families,

In Unit 4, students will work on the following fifth grade Common Core standards in the Number and Operations in Base Ten (NBT) domain.

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| 5.NBT.7 | Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. |
|---------|--|

Unit 4 Concepts:

- Multiply decimals using an area model, the distributive property, and an algorithm
- Divide decimals using an area model, decomposing a number through expanded notation, and an algorithm

Unit 4 Vocabulary:

- Place value mat
- Ones, tenths, hundredths
- Factor \times Factor = Product
- Dividend \div Divisor = Quotient
- Algorithm
- Area model
- Dealing strategy
- Measuring up strategy

Ask questions like these to help your child become a productive mathematical thinker:

- How does the measuring up strategy help you understand what is going on when you divide decimals?
- Show me more than one way to multiply or divide two decimals.

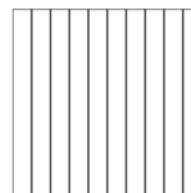
Ones

$$1 = 10(.1) = 100(.01)$$



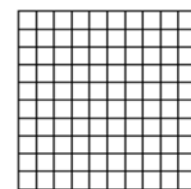
Tenths

$$1 = 10(.1) = 100(.01)$$



Hundredths

$$1 = 10(.1) = 100(.01)$$



We encourage you to talk with your child daily about what was learned in math class.

Thank you for your support!

Need a review? Check out our lesson videos on-line!

swunmath.com/student-videos

If you don't know the class's special name, ask your child's teacher.



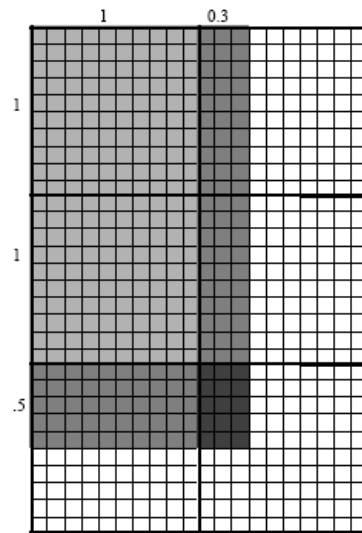
Our focus in this unit is to help students conceptualize what is happening when multiplying and dividing decimals. Before we work with the traditional algorithm, students will first build their conceptual understanding with several different strategies and models.

When helping with homework at home, ask your child to show you how they're using these strategies and models to show how they understand what they're multiplying or dividing.

$$2.5 \times 1.3 = 3.25$$

Area Model

1. Draw a picture labeling the top and side with the two factors.
2. Shade in the multiplication.
3. Count how many ones, tenths, and hundredths are in the picture.
4. Write down the product.



Distributive Property

1. Decompose both numbers.
2. Multiply each decomposed part of the first number by the decomposed part of the second number.
3. Combine the numbers.

$$2.5 \times 1.3 = \text{----}$$

$$(2 + .5) \times (1 + .3)$$

$$\begin{array}{r} (2 + .5) \times (1 + .3) \\ 2 + .6 \end{array} + \begin{array}{r} (2 + .5) \times (1 + .3) \\ .5 + .15 \end{array}$$

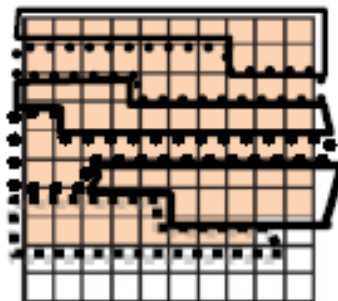
$$3.25$$

$$0.78 \div 0.13 = 6$$

Measuring Up Strategy

use this strategy to find the number of groups

1. Shade a hundredths base ten block grid to display the dividend.
2. Mark groups equal to the divisor.
3. Continue to make groups within the shaded area.
4. Count the number of equal groups.



$$0.78 \div 6 = 0.13$$

Dealing Strategy

use this strategy to find the number in each group

1. Use a hundredths grid to display the dividend.
2. Use a number of hundredths grids equal to the divisor.
3. Shade 0.1 at a time by counting out the dividend.
4. Count the value in each group.

