Family Letter
5th Grade Multiplication and Division of Decimals

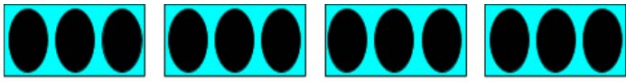
Dear Family,

Focus of the Unit

This unit on multiplication and division of decimals builds on students' learning in previous grade levels. Students will apply their prior knowledge of multiplication of whole numbers to make connections to multiplication decimals.

Building off Past Mathematics

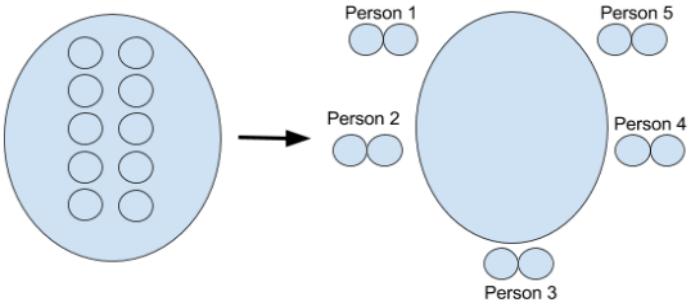
In previous grade levels, students learned that multiplication is counting or combining equal sized groups. Situations involving multiplication have a number of groups and a number of objects in each group. In previous grade levels, students learned that a multiplication equation should be read in this way:



There are 4 packs of cookies on the counter.
Each pack has 3 cookies inside.
How many cookies are on the counter?

4 packs of 3 cookies in each pack is the same as 12 cookies
4 x 3 =12

Students also learned that division is separating a number of objects into equal shares or groups. Situations involving division contain a total number of objects, the number of groups, and the number of objects in the groups.



There are 10 cookies on a plate, to be shared equally with 5 people. How many cookies will each person get?

If 10 cookies are shared equally with 5 people, each person will get 2 cookies.

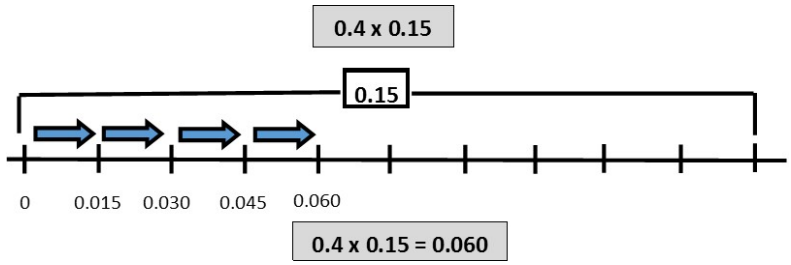
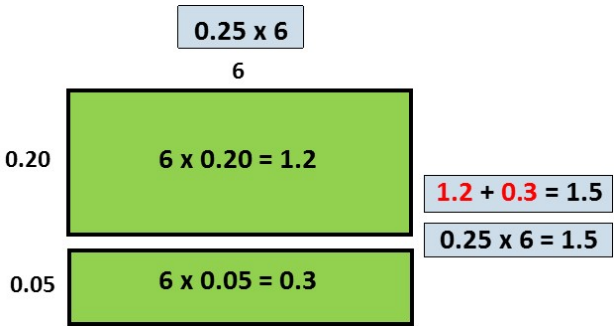
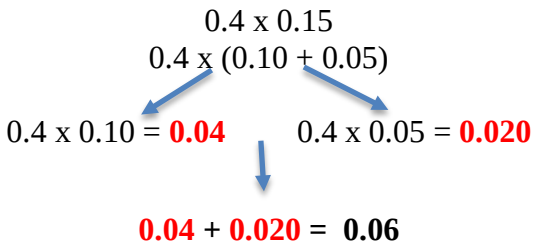
10 cookie ÷ 5 people = 2 cookies per person

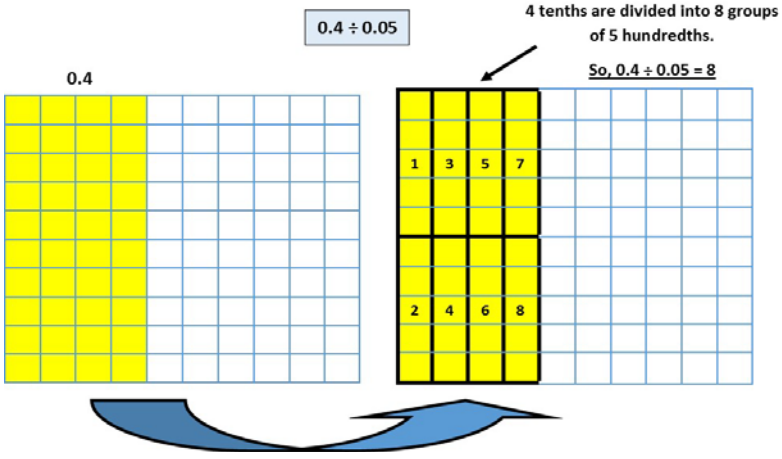
10 ÷ 5 = 2

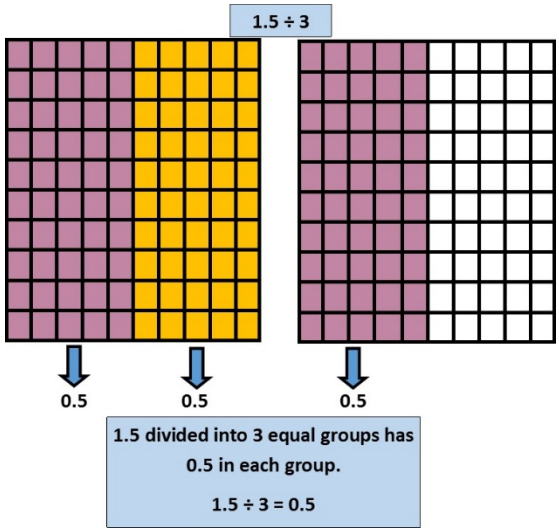
Students use their understanding of multiplication and division to solve story problems about real-life situations. These story problems involve situations where the number of groups, number of objects in a group, or total amount are missing. It is important that students "act out" story problem situations, so they can clearly see what information is given and what is still needed.

Strategies that Students Will Learn

In fifth grade, students use their previous understanding of multiplication and division strategies and apply them to decimals. Below are some specific strategies and representations that students use as they solve multiplication and division situations:

Multiplication	
Number Line Model	
Use an area model to break apart unknown facts	
Break apart numbers by their place value	

Division	
Use an area model to show partitioning of a quantity	

Use a fair sharing model to find the number in each group or share	

Ideas for Home Support

As a family, point out experiences when decimals are involved with your everyday life. These experiences might include totaling the grocery bill, doubling or halving a recipe, calculating the bill at a restaurant, determining mileage for a trip, buying gas for your vehicle, and many others. This helps children see and apply multiplication and division with decimals in a real-life context. Discuss mental strategies and estimations before solving to discover how your child is making sense of the mathematical context. When solving, prompt your child to show their thinking with models, as shown above, to remind him/her of the value of each number in the situation and the relationships between the numbers.

Thank you for serving as partners in your child's success as a mathematician!
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