



## **Common Core Math Newsletter**

### **5th Grade Unit 4: Multiplying and Dividing Partial Numbers**

*In this unit, students will continue to work with fractions and decimals and stretch their understanding of addition and subtraction to multiplication and division. They will apply this knowledge to solving real world problems.*

#### **Standards**

##### **5.NF.6**

- Solve real world problems involving multiplication of fractions
- Solve real world problems involving multiplication of mixed numbers
- Use visual models to represent the problems
- Use equations to represent the problems

##### **5.NF.7c**

- Solve real world problems involving division of unit fractions by non-zero whole numbers
- Solve real world problems involving division of whole numbers by unit fractions
- Use visual models to represent the problem
- Use equations to represent the problem (e.g. How much chocolate will each person get if 3 people share  $\frac{1}{2}$  lb of chocolate equally? How many  $\frac{1}{3}$  -cup servings are in 2 cups of raisins?)

##### **5.NBT.7**

- Use concrete models to add, subtract, multiply, and divide decimals to the hundredths
- Use drawings to add, subtract, multiply, and divide decimals to the hundredths
- Use place value strategies to add, subtract, multiply, and divide decimals to the hundredths
- Use the relationship between addition and subtraction to add, subtract, multiply, and divide decimals to the hundredths
- Relate the strategy used to a written method and explain the reasoning used

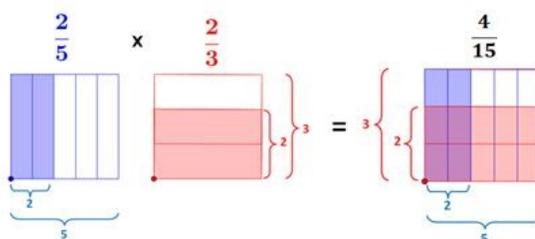
## 5th Grade Common Core Math

### Unit 4: Multiplying and Division of Partial Numbers

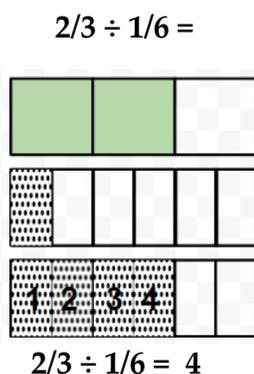
#### Vocabulary

<b>mixed numbers</b>	a number that consists of an integer and proper fraction (e.g. $1\frac{3}{4}$ )
<b>reciprocal</b>	or multiplicative inverse, one of a pair of numbers that when multiplied together equal 1 (e.g. $\frac{1}{2}$ & 2)
<b>unit fraction</b>	a fraction that has a numerator as one and a positive denominator (e.g. $\frac{1}{2}$ , $\frac{1}{3}$ , $\frac{1}{4}$ etc.); its reciprocal is a positive number

visual model for fraction multiplication



visual model for fraction division



OR

$\frac{2}{3} \div \frac{1}{6}$

Start with two 3 by 6 rectangular wholes.

Shade in  $\frac{2}{3}$  in one and  $\frac{1}{6}$  in the other.

How many times the second fraction goes into the first fraction?

Answer: 4 times

#### Additional Resources

##### IXL.com Topics:

- Multiply Decimals
- Division with Decimals
- Multiply Fractions
- Divide Fractions

##### LearnZillion.com Videos:

- <https://learnzillion.com/lessonsets/538-solve-problems-involving-multiplication-of-fractions-and-mixed-numbers>
  - Quick Code LZ3358
- <https://learnzillion.com/lessonsets/737-divide-whole-numbers-by-unit-fractions-and-unit-fractions-by-whole-numbers>
  - Quick Code LZ3788
- <https://learnzillion.com/lessonsets/229-multiply-and-divide-by-decimals-to-the-hundredths>
  - Quick Code LZ557 or LZ560

Be sure to look to the left of the video to see other lessons on the standard.