



## Common Core Math Newsletter

### 6th Grade Unit 3: Multiplication and Division of Fractions

*In this unit, students will continue to develop their understanding of multiplication and division and extend this understanding to operations with fractions. Students will interpret quotients and solve real world problems.*

#### Standard

##### 6.NS.1

- Apply and extend understandings of multiplication and division to divide fractions by fractions
- Interpret and compute quotients of fractions and solve word problems involving division of fractions
- Use visual models and equations to represent problems
- Create a story context for division of fractions
- Use the relationship between multiplication and division to explain division of fractions

#### Vocabulary

**reciprocal** or **multiplicative inverse** a pair of numbers that when multiplied together equal 1



**story context** otherwise known as a story problem

**equation** a statement that the values of two mathematical expressions are equal

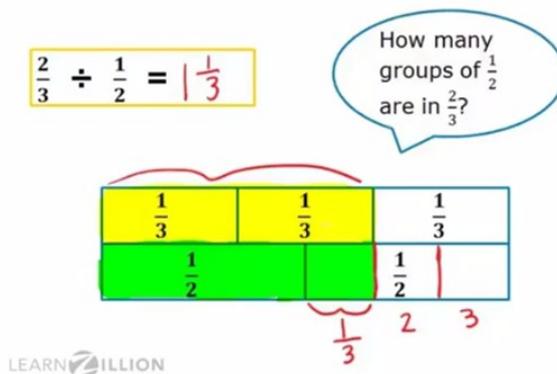
A photograph of a piece of lined paper with a pencil resting on it. The paper has two lines of handwritten text: the first line is the equation  $2x + 5 = 17$  and the second line is  $x = 6$ .

## 6th Grade Common Core Math

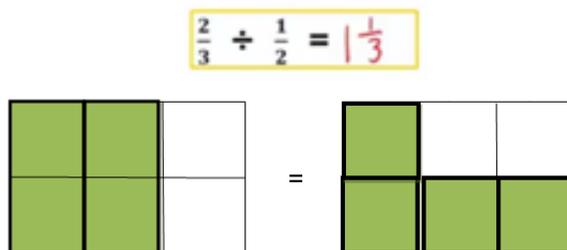
### Unit 3: Multiplication and Division of Fractions

#### Vocabulary (cont'd.)

model  
division of  
fractions  
with bar  
models

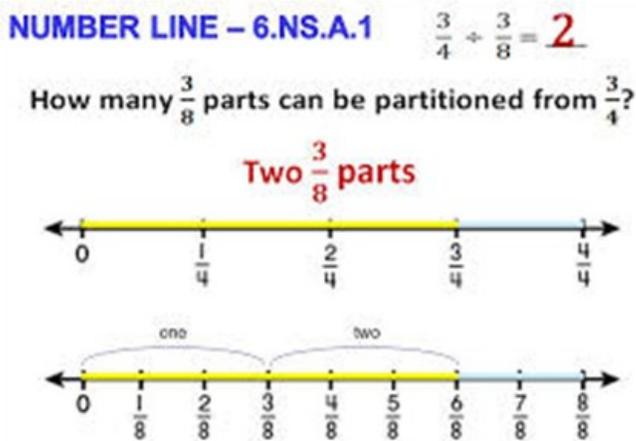


model  
division of  
fractions  
with a box  
model



(example: Two-thirds of the rectangle is shaded. You can move the shaded boxes to see that you can fill an entire one-half piece and then you have one-third of another one-half piece.)

model  
division of  
fractions on  
a double  
number line



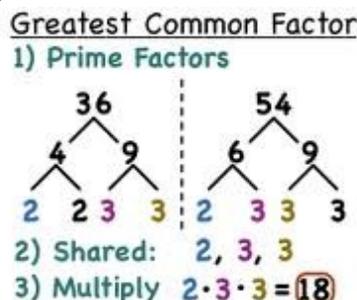


## 6th Grade Common Core Math

### Unit 3: Multiplication and Division of Fractions

#### Vocabulary (cont'd.)

**Greatest Common Factor (GCF)** the largest number that divides two numbers evenly



(example: The greatest common factor between 36 and 54 is 18 because 18 is the largest number that divides both 36 and 54 evenly.)

**Least Common Multiple (LCM)** the smallest number that 2 or more numbers divide into evenly

Multiples of 3:  
 0, 3, 6, 9, 12, 15, 18, 21, 24...

Multiples of 4:  
 0, 4, 8, 12, 16, 20, 24, 28...

The LCM of 3 and 4 is 12.

#### Additional Resources

##### IXL.com Topics:

- Multiplication of fractions
- Division of fractions

##### LearnZillion.com Videos:

- <https://learnzillion.com/lessons/213-multiply-fractions-by-fractions-using-area-models>
  - Quick Code LZ213
- <https://learnzillion.com/lessons/1263-divide-a-whole-number-by-a-nonunit-fraction>
  - Quick Code LZ1263
- <https://learnzillion.com/lessons/1382-solve-word-problems-involving-division-of-fractions-by-fractions-using-picture-models>
  - Quick Code LZ1382
- <https://learnzillion.com/lessons/3584-interpret-quotient-of-a-fractional-division-problem>
  - Quick Code LZ3584

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