

# Key Ideas

## Fractions & Computation



- Taught conceptually and without algorithms or “tricks”
- Students will use a variety of visual models to represent the concepts
- Must help students make sense of the problem
  - ✓ How do you know your answer is reasonable?
- There are no restrictions on denominators in 5<sup>th</sup> grade

# Relevant Vocabulary



Dividend



$$40 \div 8 = 5$$

Divisor



Quotient



$$\frac{3}{5}$$

← numerator

← denominator

$$\frac{1}{2} \quad \frac{1}{5}$$

$$\frac{1}{100}$$

Unit Fractions

# From 4<sup>th</sup> to 5<sup>th</sup> Grade ...



## 4<sup>th</sup> Grade

- Interpret remainders to whole number division problems and write the remainder as a fraction when appropriate

## 5<sup>th</sup> Grade

- Interpret fractions as division
- Divide a whole number by a unit fraction
- Divide a unit fraction by a whole number
- Understand how numbers change when we divide fractions

# Dividing Fractions

How were you taught to divide fractions?

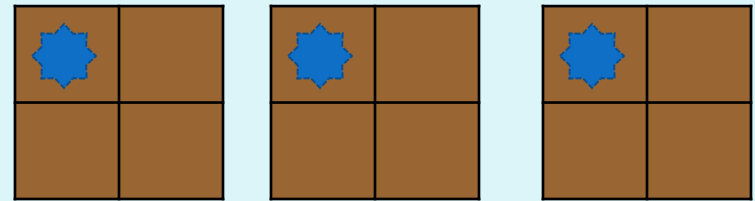
To **divide** any number by a **fraction**:  
Multiply the number by the reciprocal  
of the **fraction**.



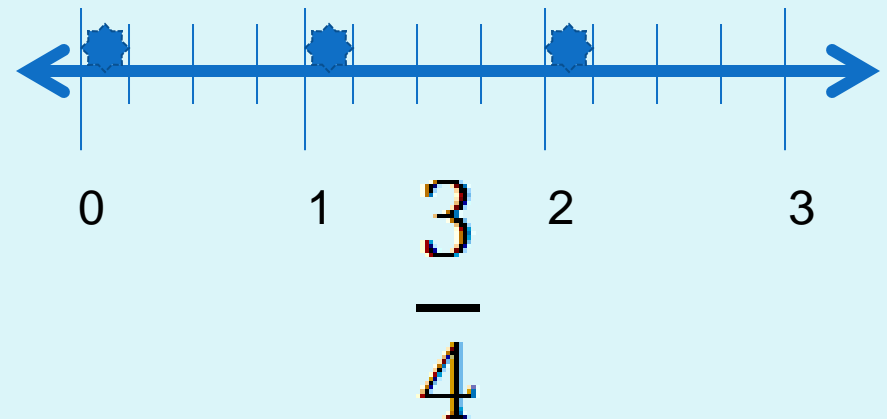
# Interpret Fractions as Division

Mrs. Moffett, her husband and two friends recently went on a hike. Mrs. Moffett packed 3 sandwiches for them to share. If they eat an equal amount of the sandwiches, how much will each person get to eat?

## Visual Model



## Number Line

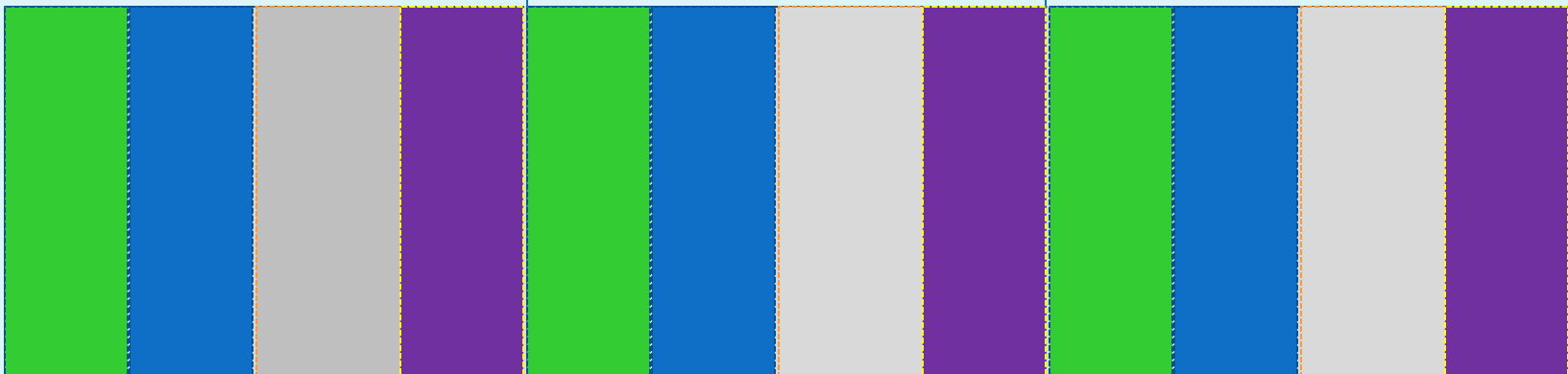


# Dividing a Whole Number by a Unit Fraction



Macy is painting stripes on her bedroom wall. The wall is 3 ft wide. Each stripe is  $\frac{1}{4}$  of a foot. How many stripes is she able to paint on the wall?

$$3 \div \frac{1}{4} = 12$$



# Dividing a Unit Fraction by a Whole Number



You have  $\frac{1}{8}$  of a bag of pens and you need to share them among 3 people. How much of the bag does each person get?

