
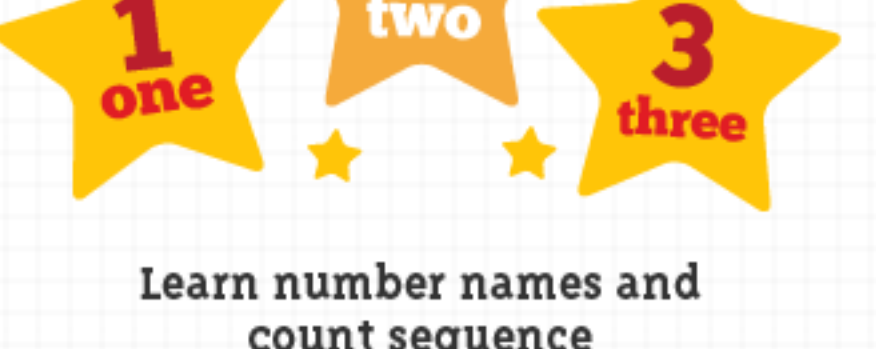



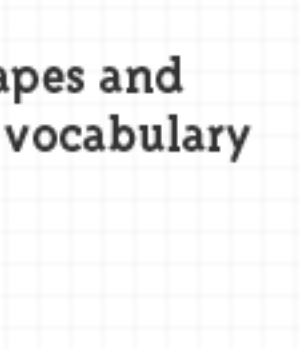


# The Ultimate Math Cheat Sheet

It can be overwhelming for any parent to keep up with their children's education. That's why we created an easy-to-use math sheet which clearly explains key concepts in a simple way. Below are important math skills children need to learn as they progress from Kindergarten through 6th grade.

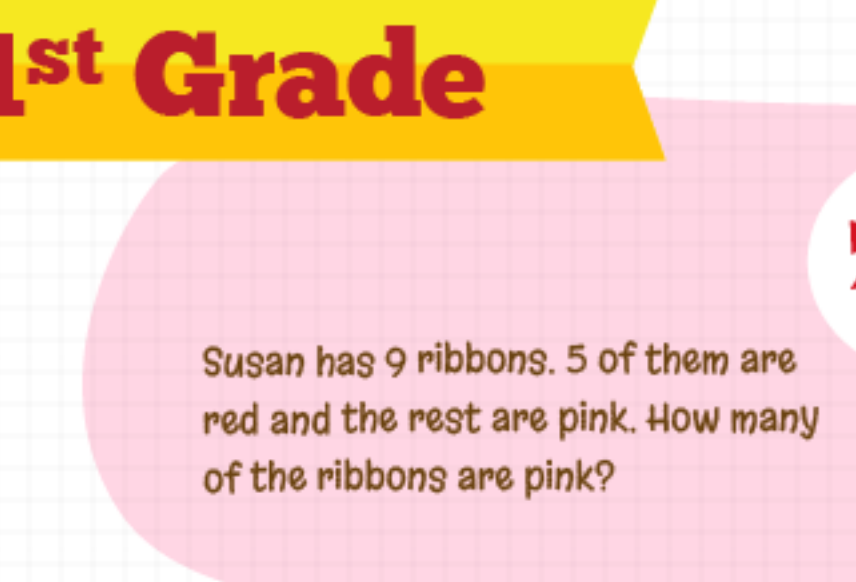
## Kindergarten

Begin to solve basic equations using addition and subtraction

 Square
  hexagon
   
 circle
  triangle

Learn shapes and orientation vocabulary



Learn number names and count sequence

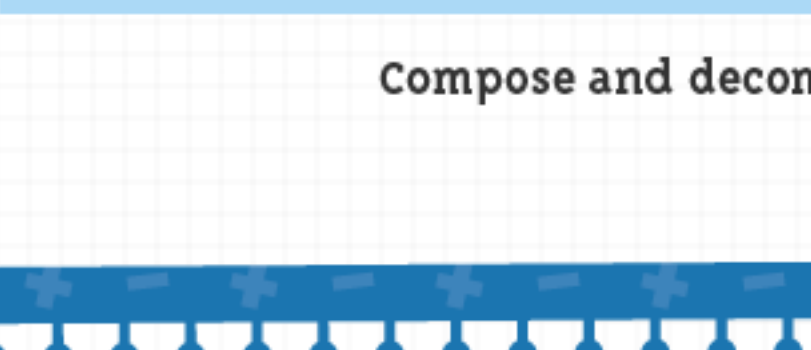



Begin learning numbers 11-19 and understanding place value

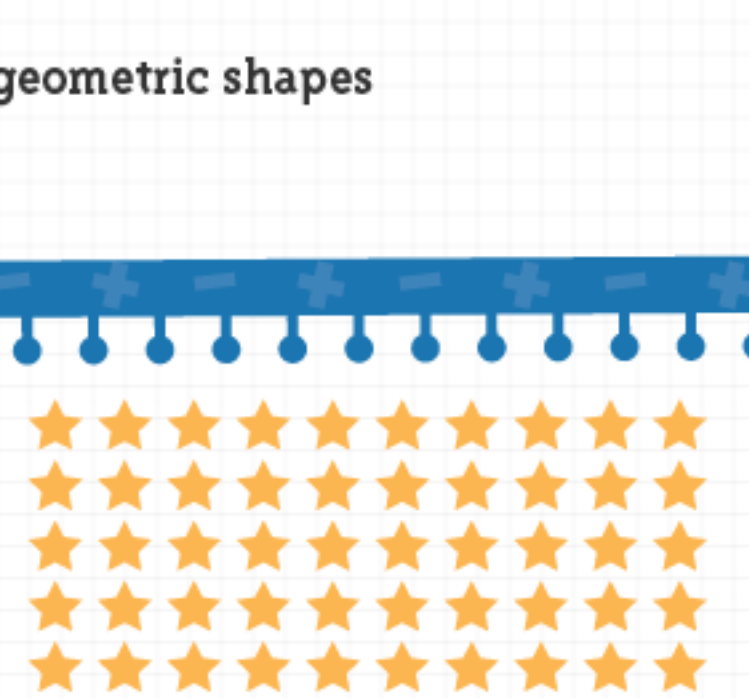
## 1st Grade

Susan has 9 ribbons. 5 of them are red and the rest are pink. How many of the ribbons are pink?

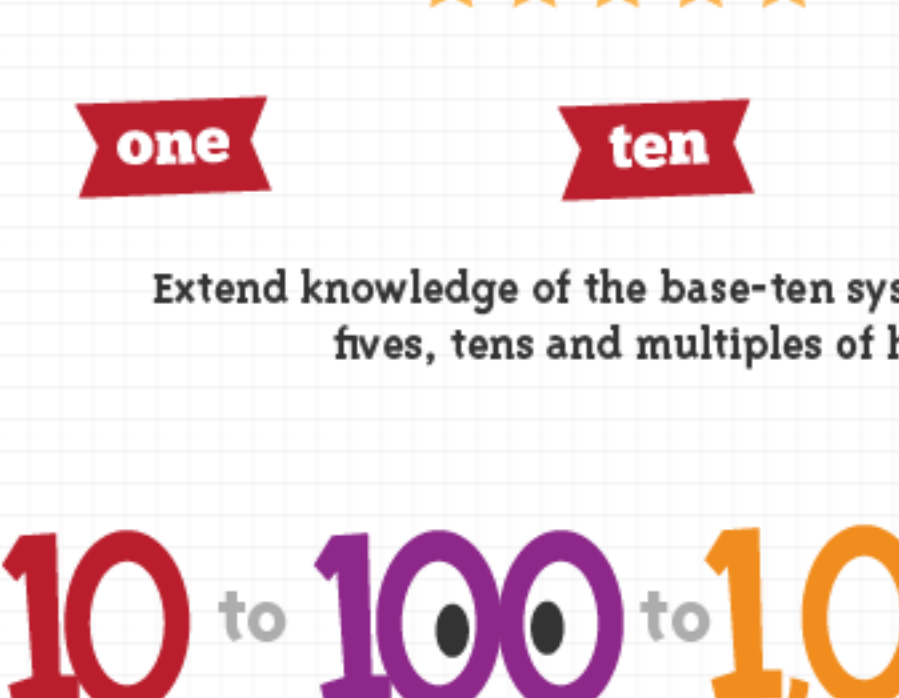
Understand addition and subtraction (Solve word problems using addition and subtraction)

Develop understanding of whole number relationships and place value

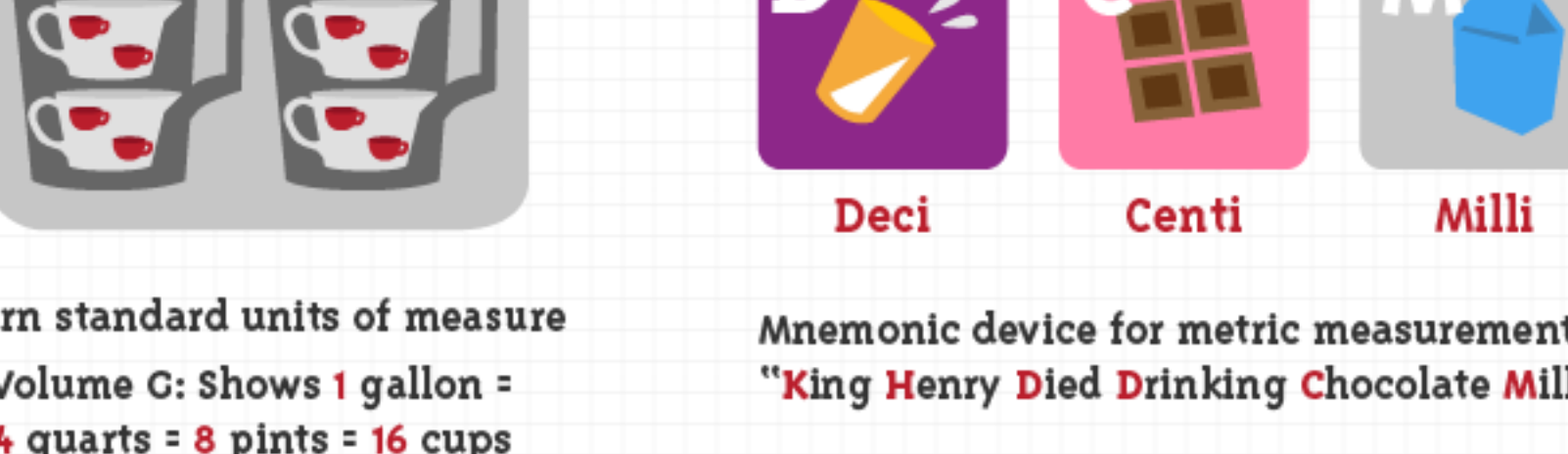


Develop understanding of linear measurements and measuring length

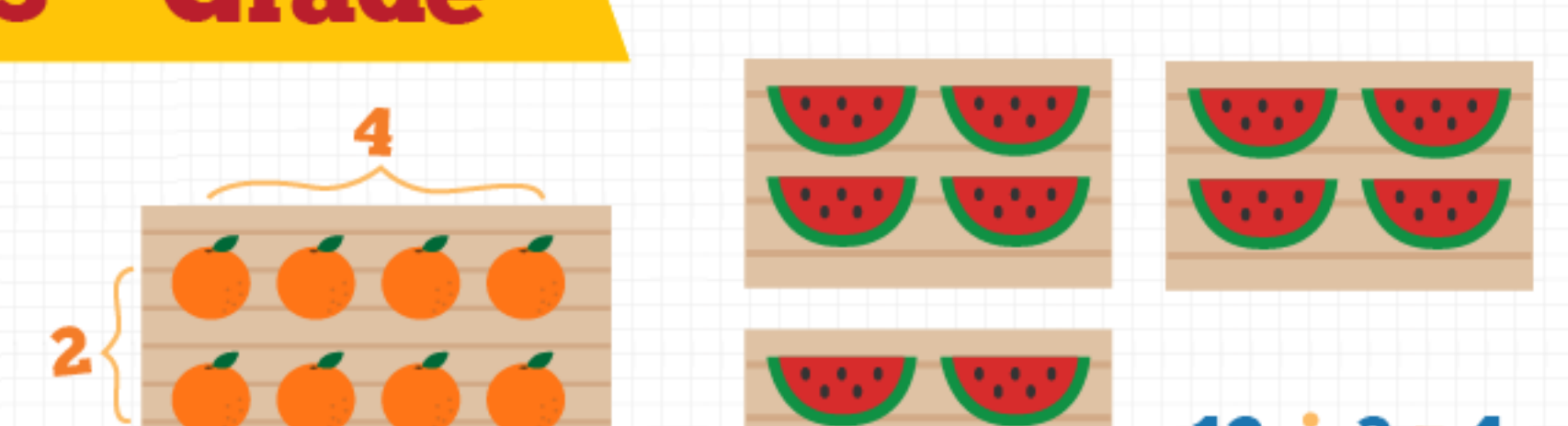


Compose and decompose geometric shapes

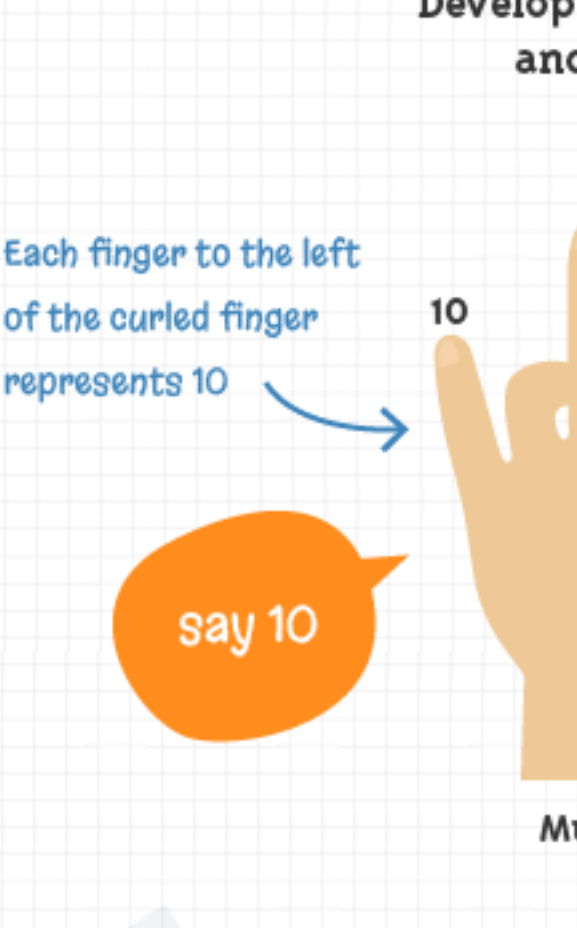
## 2nd Grade



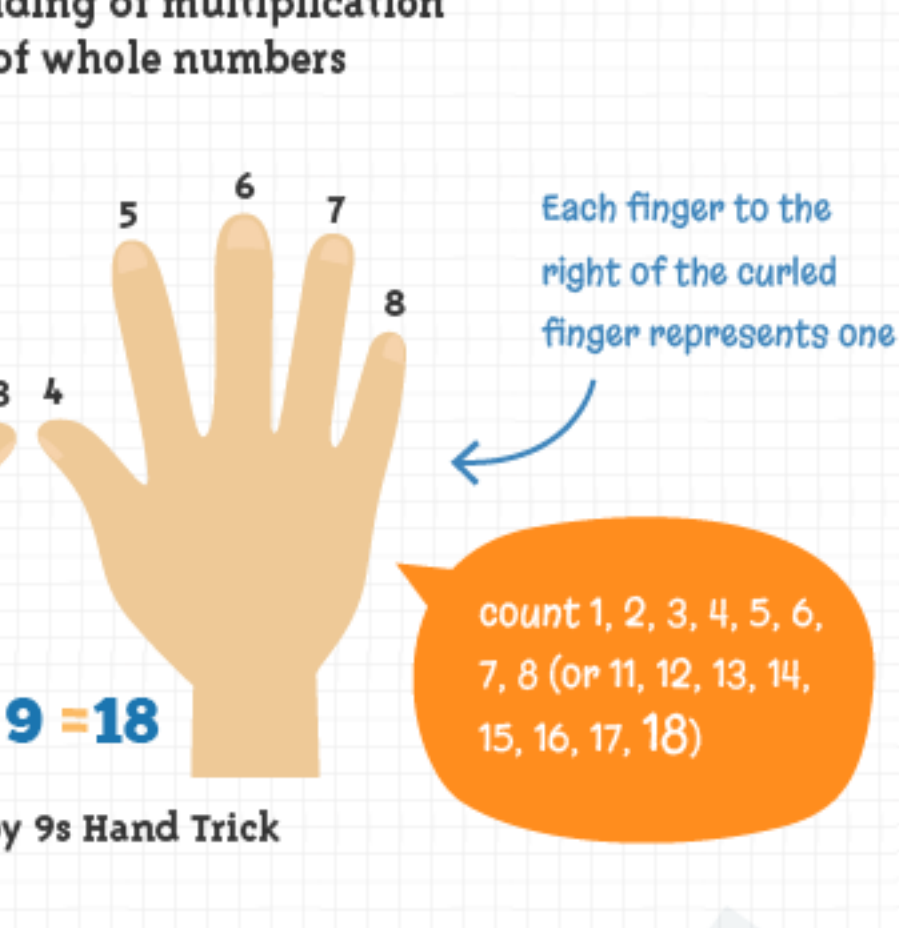
Extend knowledge of the base-ten system, which includes counting in fives, tens and multiples of hundreds, tens and ones



Understand multi-digit numbers up to 1,000

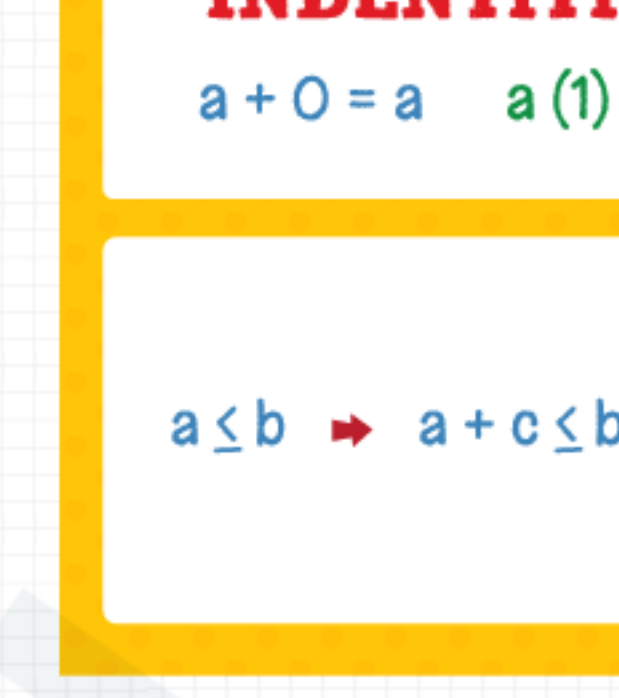


Learn standard units of measure  
Volume G: Shows 1 gallon = 4 quarts = 8 pints = 16 cups

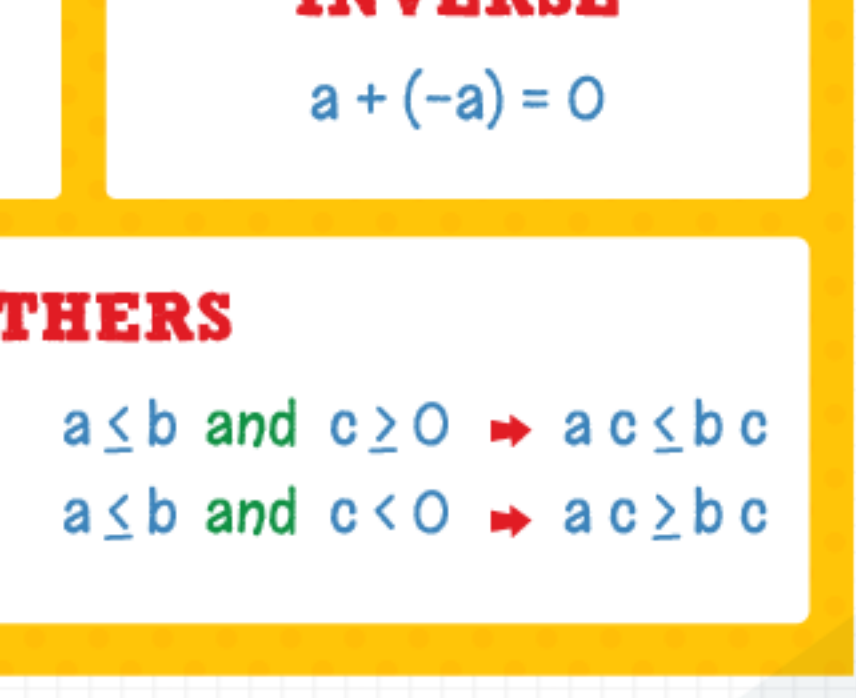


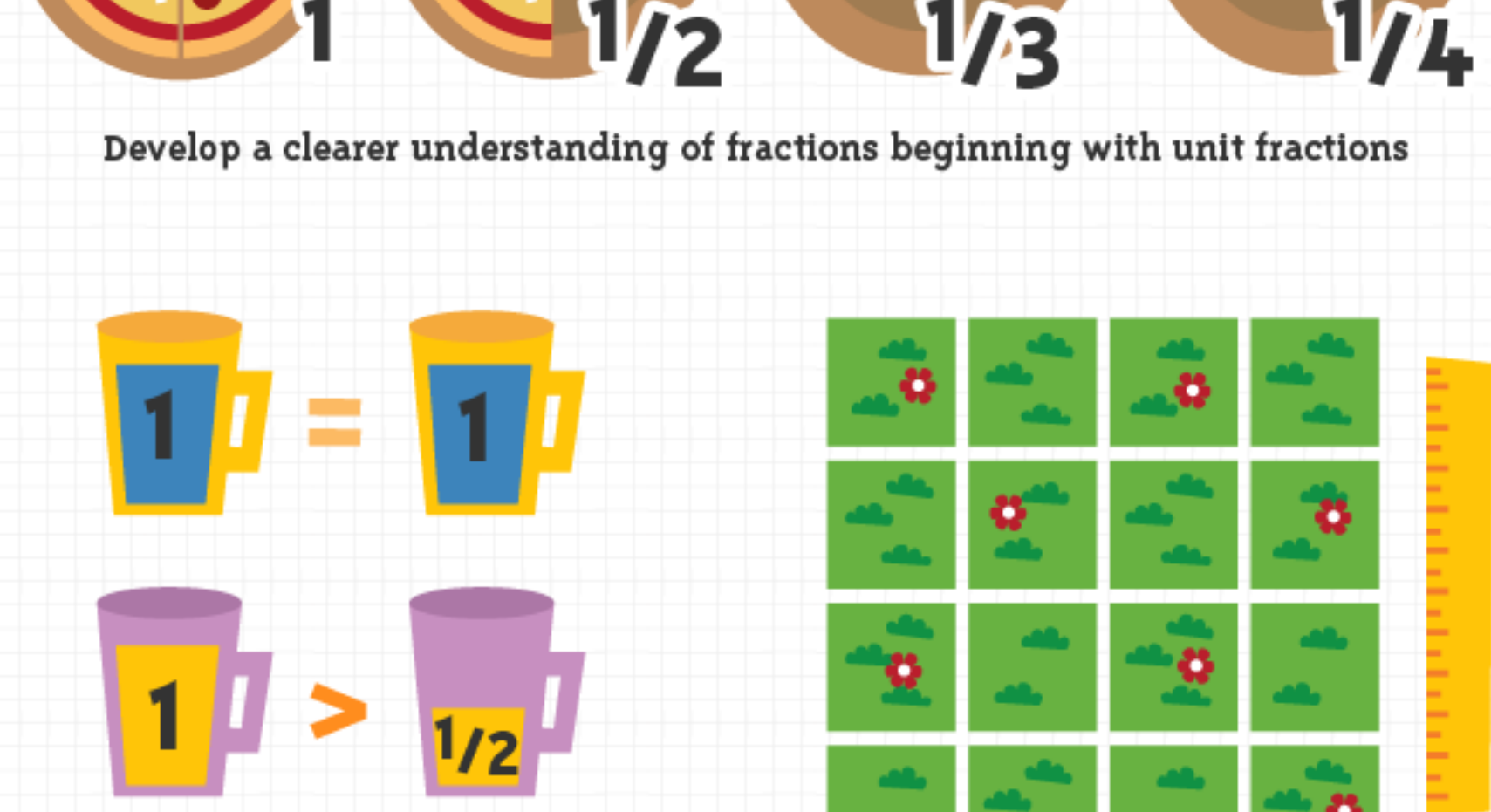
Mnemonic device for metric measurements: "King Henry Died Drinking Chocolate Milk"

## 3rd Grade



Develop understanding of multiplication and division of whole numbers

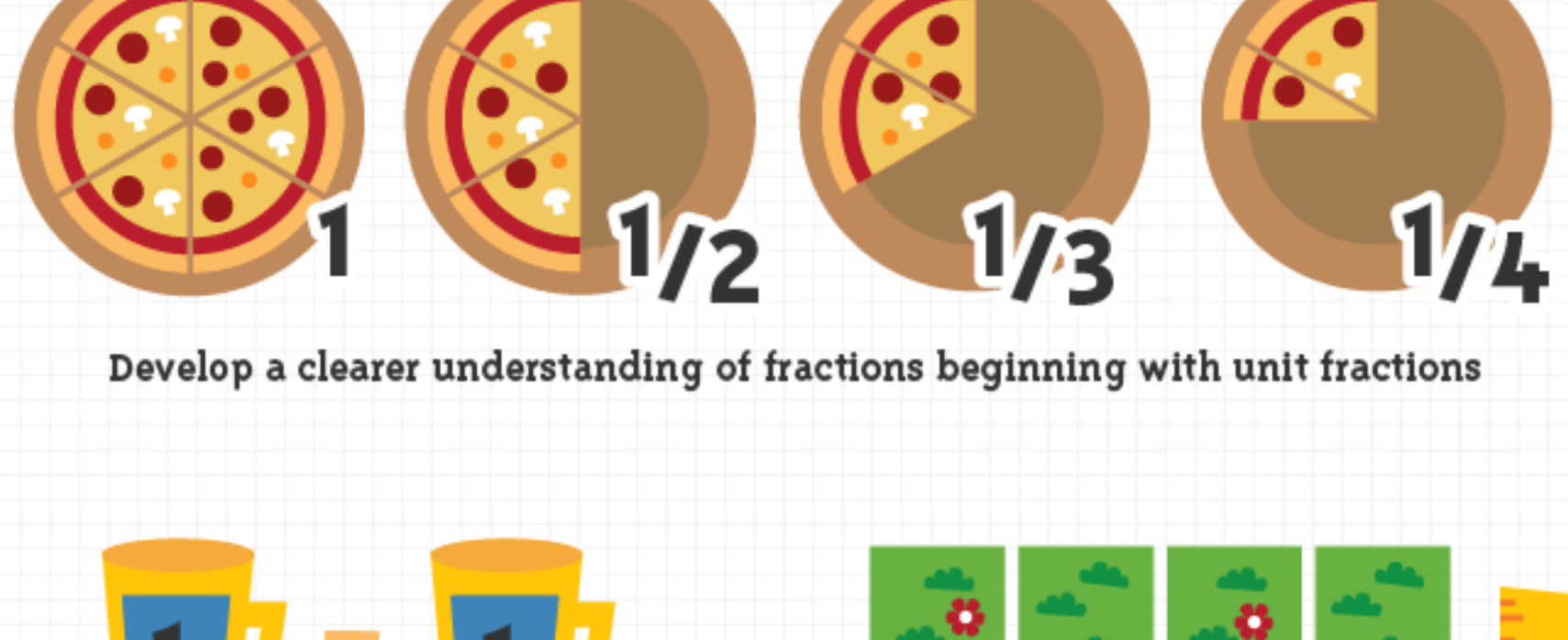




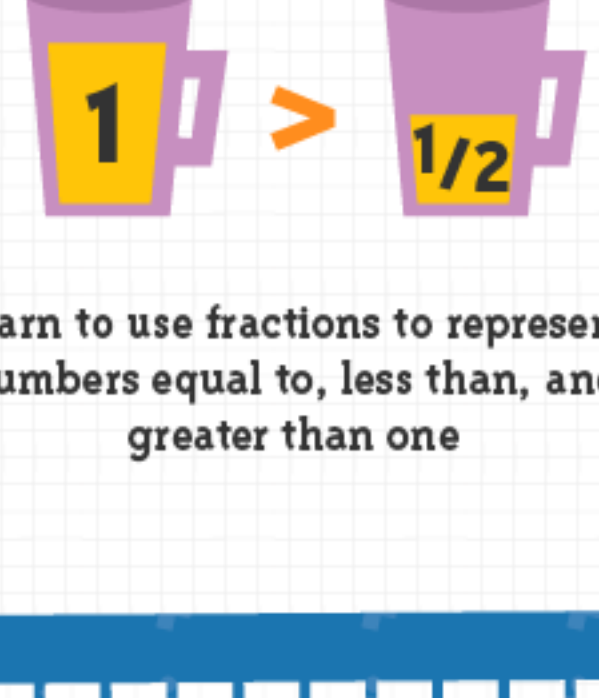
Multiplying by 9s Hand Trick

### Learn the PROPERTIES OF OPERATIONS

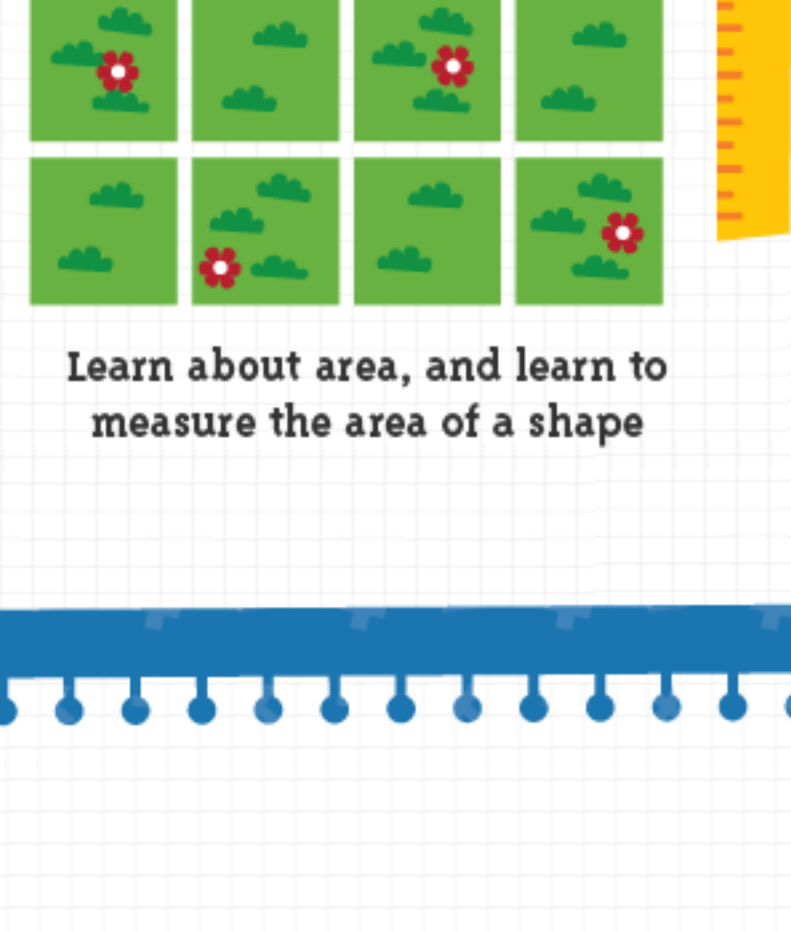
<b>CLOSURE</b> $a + b = R$ $a \cdot b = R$ R = a set of Real numbers	<b>COMMUTATIVE</b> $a + b = b + a$ $a \cdot b = b \cdot a$
<b>ASSOCIATIVE</b> $(a + b) + c = a + (b + c) = a + b + c$ $(a \cdot b) \cdot c = a \cdot (b \cdot c) = a \cdot b \cdot c$	<b>DISTRIBUTIVE</b> $a(b + c) = a \cdot b + a \cdot c$ $(a + b)c = a \cdot c + b \cdot c$
<b>IDENTITIES</b> $a + 0 = a$ $a(1) = a$	<b>INVERSE</b> $a + (-a) = 0$
<b>OTHERS</b> $a \leq b \rightarrow a + c \leq b + c$ $a \leq b$ and $c \geq 0 \rightarrow a \cdot c \leq b \cdot c$ $a \leq b$ and $c < 0 \rightarrow a \cdot c \geq b \cdot c$	



Develop a clearer understanding of fractions beginning with unit fractions



Learn to use fractions to represent numbers equal to, less than, and greater than one



Learn about area, and learn to measure the area of a shape

## 4th Grade

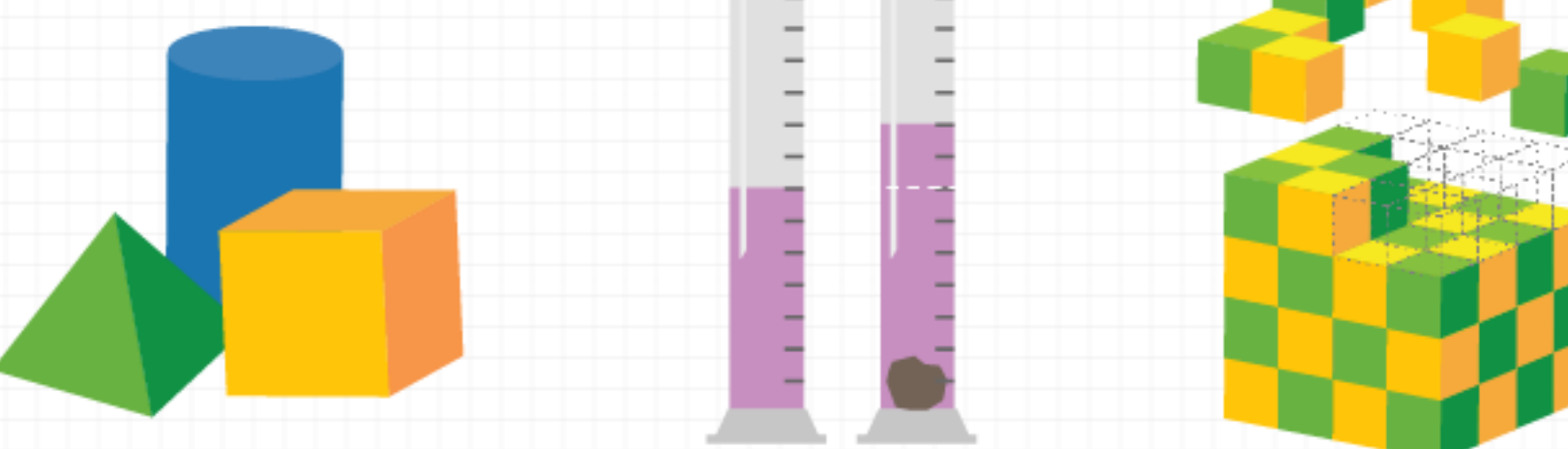
Understand place value to 1,000,000

**DISTRIBUTIVE**  
 $a(b + c) = a \cdot b + a \cdot c$

Focus on the Distributive Property




Learn fraction equivalence and operations with fractions

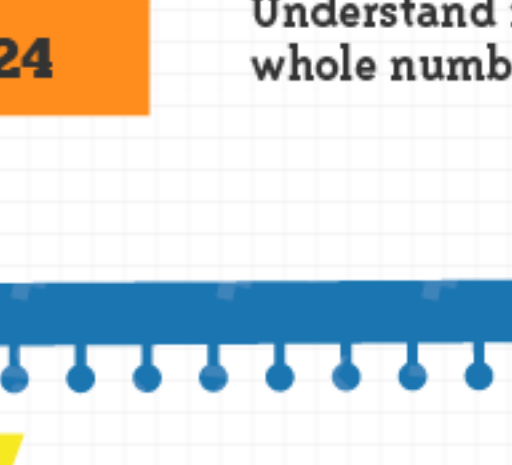


Learn the order of operations

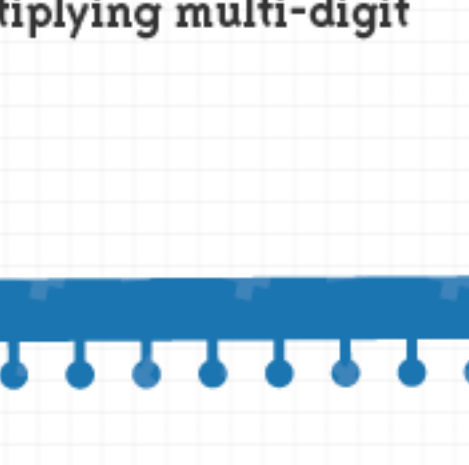
## 5th Grade



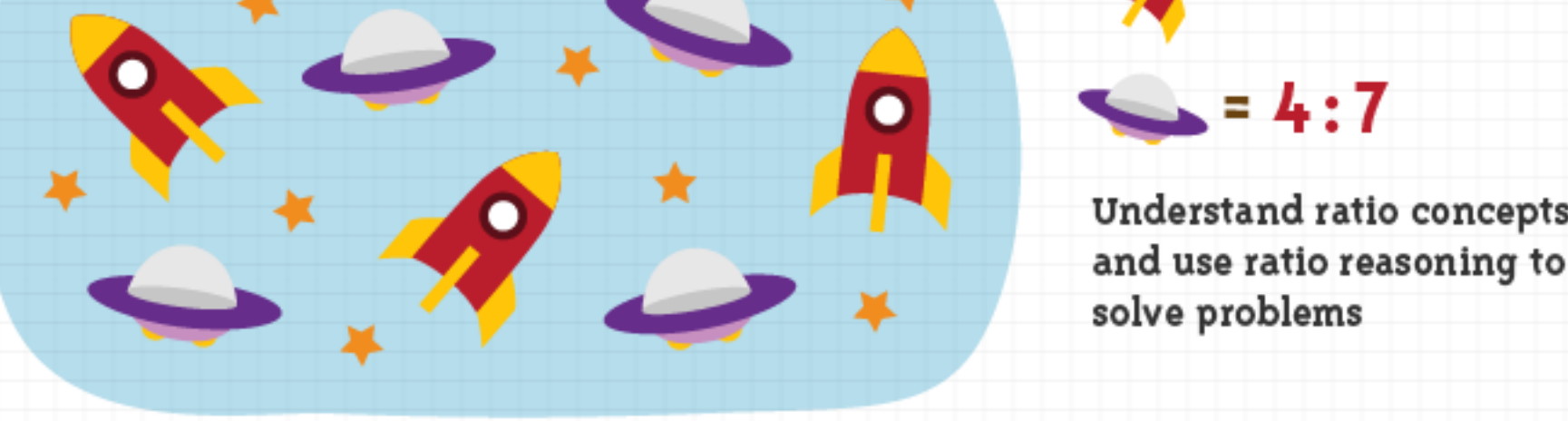
Recognize volume as an attribute of solid figures



Understand concepts of volume measurement

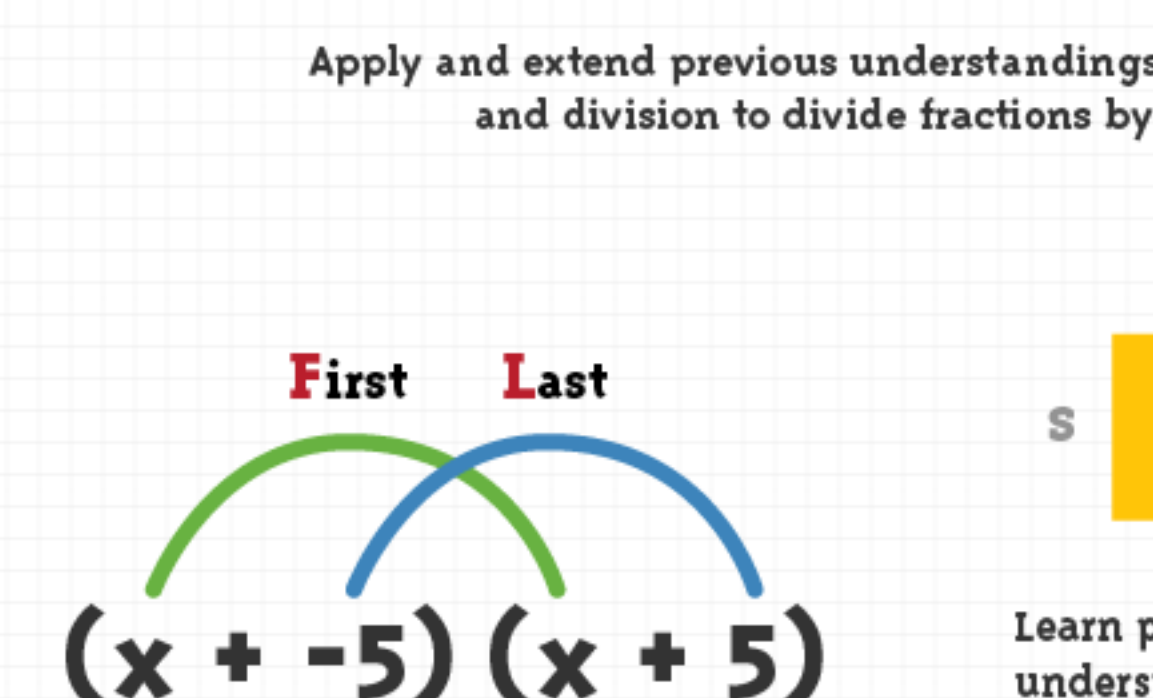


Learn volume of cubes

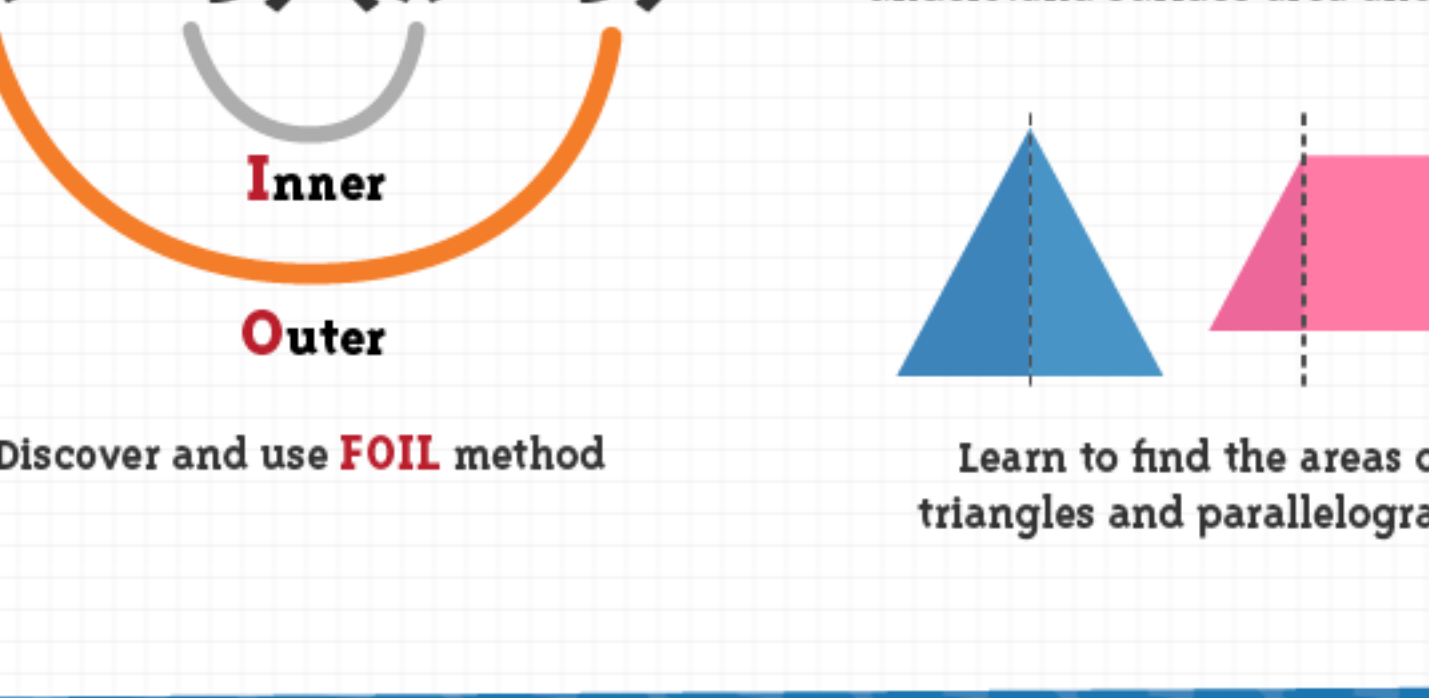


Understand multiplying multi-digit whole numbers

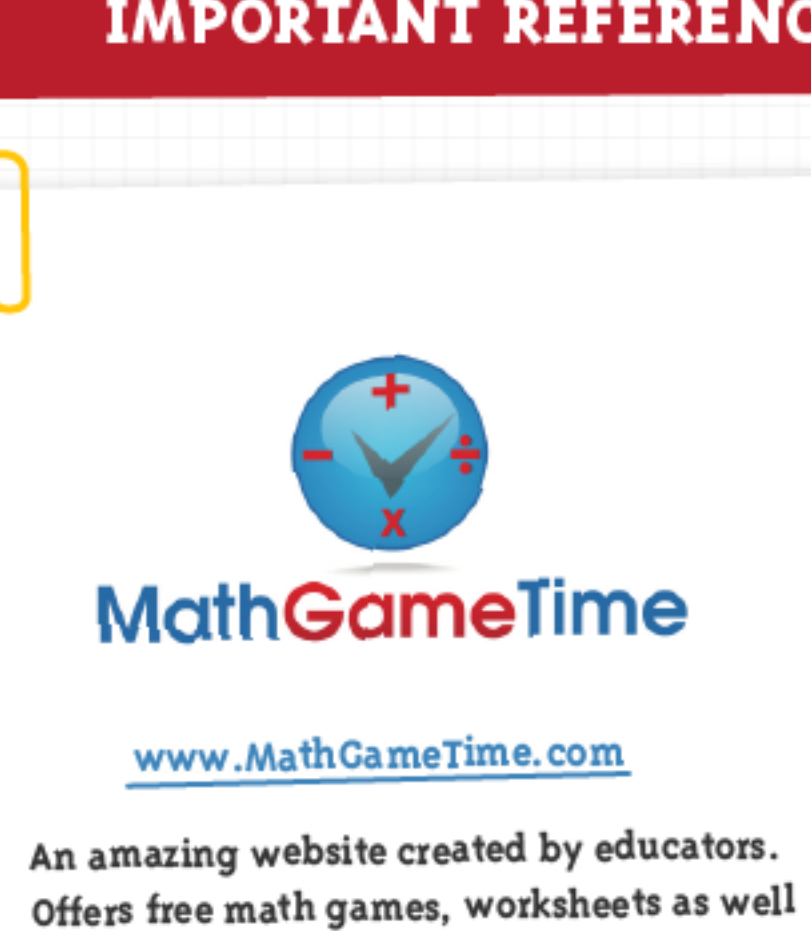
## 6th Grade



Understand ratio concepts and use ratio reasoning to solve problems



Apply and extend previous understandings of multiplication and division to divide fractions by fractions

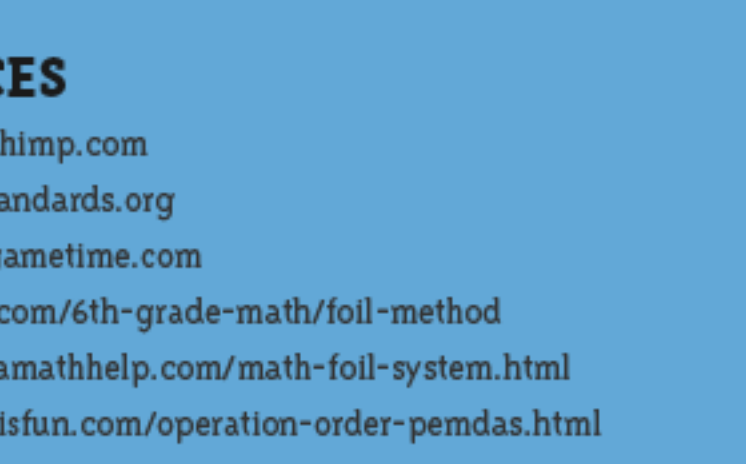


Discover and use FOIL method



Learn problem solving techniques to understand surface area and volume

### IMPORTANT REFERENCES AND LEARNING TOOLS



[www.MathGameTime.com](http://www.MathGameTime.com)  
 An amazing website created by educators. Offers free math games, worksheets as well as videos for children, parents and teachers.



[www.MathChimp.com](http://www.MathChimp.com)  
 Math Chimp is a great resource for math activities organized by the Common Core Standards. Make learning fun!

### SOURCES

- www.mathchimp.com
- www.corestandards.org
- www.mathgametime.com
- www.tulyn.com/6th-grade-math/foil-method
- www.gradeamathhelp.com/math-foil-system.html
- www.mathsisfun.com/operation-order-pemdas.html
- www.superkids.com/aweb/tools/math/order/quicktips.shtml
- www.k-5mathlearningresources.com/Place-Value-Strategies.html
- www.topandbest.org/2013/01/10/best-math-websites-to-learn-mathematics.html
- www.insidemathematics.org/index.php/tools-for-teachers/2nd-grade-math/core-ideas

