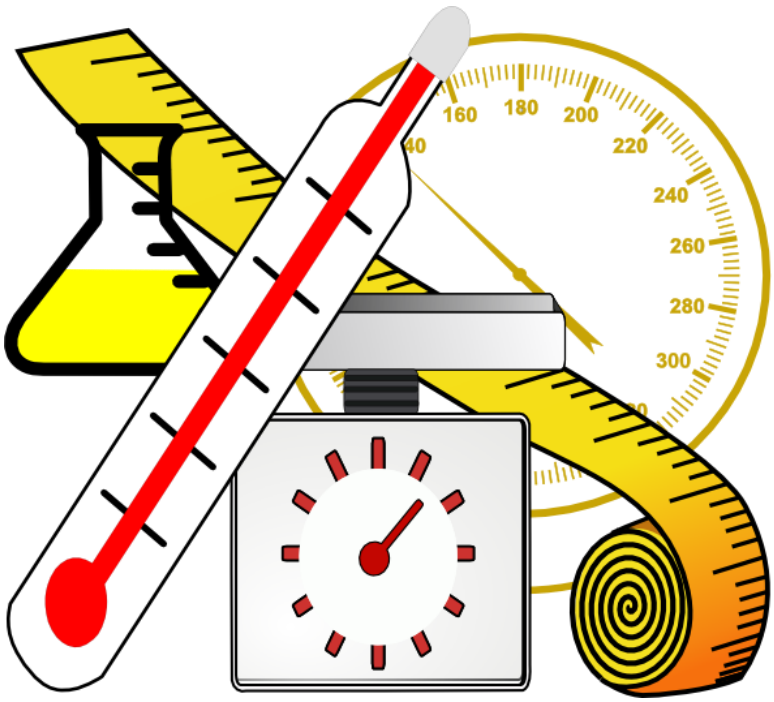
MEASUREMENT



IEP GOALS:

SWBAT identify basic tools for measurement (ruler, measuring cup) and when each is appropriate to use
SWBAT identify inches on a ruler or tape measurer; measure a given line or object to the nearest inch
SWBAT compare given lines or objects as shorter or longer
SWBAT identify common increments on a measuring cup (half, third, fourth)
SWBAT compare given measurements in measuring cups as less or more

CCSS/CURRICULUM 2.0 STANDARDS:

CCSS.Math.Content.2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
CCSS.Math.Content.K.MD.A.2 Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference.
CCSS.Math.Content.2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

Name: _____

Joyce Yu, GHS LFI 2019

Tools for Measurement

Measurement helps us to describe the things around us by using **numbers**. Measurement is very important because it helps us to understand things around us. For example, Alexis has big feet. How will he decide which pair of shoes to buy at the store? He would measure the size of his feet with a ruler before he buys the shoes. If his feet are 10.5 inches long, then he would have to find size 9 shoes.

Here's another example. Zoey isn't feeling well. How will the nurse decide if Zoey has a fever or not? The nurse would measure her temperature with a thermometer before deciding if she is sick or not. If Zoey's temperature is 100°F or higher, then she definitely has a fever.

Chew on This! Kenny's neighbor is passing out bags of candy for Halloween. Kenny wants to know which bag he should take. How will he make a decision?

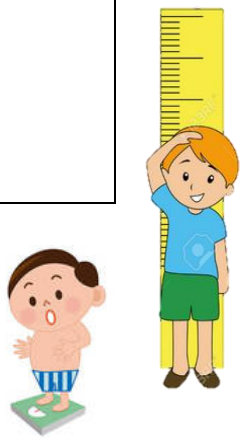
You can measure almost everything about you. How tall you are, how heavy you are, how long your arms are, what your body temperature is. You can use a ruler to measure your height, which is how tall you are. But you can't use a ruler to measure your weight, which is how heavy you are. You would need to use a scale. There are many different tools to use for different types of measurement.

Brainstorm This! How many different types of tools for measurement can you think of?

Measuring Me

Directions: *Use different types of measuring tools to measure the listed items.*

What will you measure?	What tool will you use?	Measurement
Height (how tall you are)		inches
Weight (how much you weigh)		pounds
Temperature		°F
How big your waist is		inches
How long your arms are		inches
How long you can hold your breath		seconds
How much water you can drink		cups



Common Measurements

Directions: *Match the type of measurement to the tool.*

Type of Measurement	Tool
Weight (how heavy?)	**Ruler** 
Height (how tall or long?)	**Scale** 
Temperature (how hot?)	**Measuring Cup** 
Volume (how much?)	**Stopwatch** 
Time (how long?)	**Thermometer** 

Common Measurements

Directions: *Match the measurement tool to the units.*

Measurement Tool	Unit
Ruler 	**Degrees**
Scale 	**Seconds and Minutes**
Measuring Cup 	**Inches**
Stopwatch 	**Pounds**
Thermometer  	**Cups**

Common Measurements

Directions: *Match the type of measurement to the units.*

Type of Measurement	Unit
Weight (how heavy?)	**Degrees**
Height (how tall or long?)	**Seconds and Minutes**
Temperature (how hot?)	**Inches**
Volume (how much?)	**Pounds**
Time (how minutes and seconds?)	**Cups**

Common Measurements

Directions: *For each type of measurement and tool, write the units.*

Type of Measurement	Tool	Units
Weight (how heavy?)	**Scale** 	
Height (how tall or long?)	**Ruler** 	
Temperature (how hot?)	**Thermometer** 	
Volume (how much?)	**Measuring Cup** 	
Time (how long?)	**Stopwatch** 	

WORD BANK				
Degrees	Inches	Pounds	Seconds	Cups

Common Measurements

Directions: *For each type of measurement and units, write the tools.*

Type of Measurement	Tool	Units
Weight (how heavy?)		**Pounds**
Height (how tall or long?)		**Inches**
Temperature (how hot?)		**Degrees**
Volume (how much?)		**Cups**
Time (how long?)		**Seconds and Minutes**

WORD BANK				
Ruler	Measuring Cup	Stopwatch	Scale	Thermometer

What are Measuring Cups?

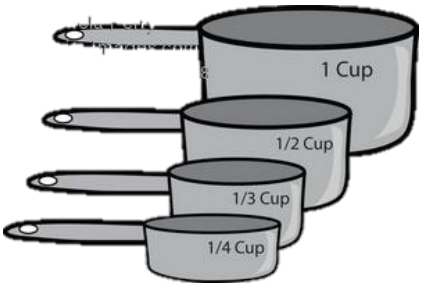
Measuring cups are usually used when cooking, to measure the **volume** of liquid or solid ingredients you have. Volume is another way to say **how much** there is. If you have a big bag of flour, you wouldn't dump all of the flour into your cookie mix. You would need to measure out exactly **how much** flour you need.

Comprehension Check! What is volume?

When you measure volume, there are many different units that you can use: ounces (oz), milliliters (ml), tablespoons (tbsp), teaspoons (tsp), and cups (c). **Cups** are commonly used for measurement while cooking.

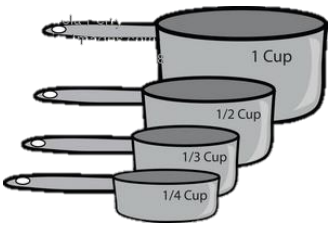
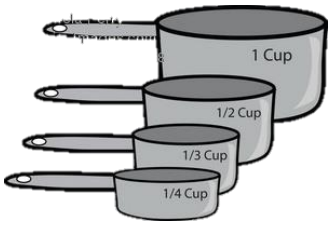
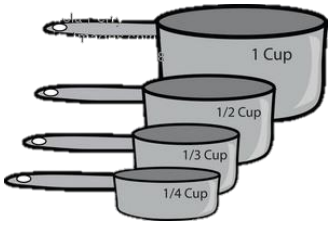
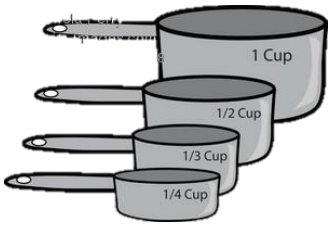
You may see several different types of cups to use for measurement. You can use a big glass cup that holds 1 full cup. When you use this glass cup, you need to fill it up to the line you want.

You can also use smaller cups that measure out specific amounts: half of a cup, third of a cup, or fourth of a cup.



Common Measurements

Directions: *Fill in the chart below.*

	Write the fraction:	*Circle:*	*Shade it in:*
One			
Half			
One Third			
One Fourth			

Common Measurements

Directions: *Match the words to the numbers.*

Word	Number
One	1/3
Half	1/4
One Third	1
One Fourth	1/2

Common Measurements

Directions: *Match the words to the numbers.*

Word	Number
One	1/4
Half	1
One Third	1/3
One Fourth	1/2

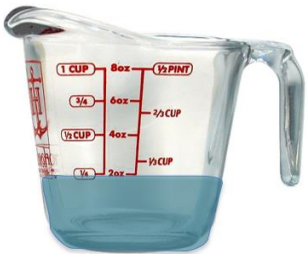
Common Measurements

Directions: *Match the measurements to the pictures.*

Measurement	Measuring Cup
1 cup	
1/2 cup	
1/3 cup	
1/4 cup	

Common Measurements

Directions: *Match the measurements to the pictures.*

Measurement	Measuring Cup
1 cup	
1/2 cup	
1/3 cup	
1/4 cup	

How Much?

Directions: *Look at the amount of liquid in the measuring cup. Write the amount of liquid in the cup. Remember to include units!*

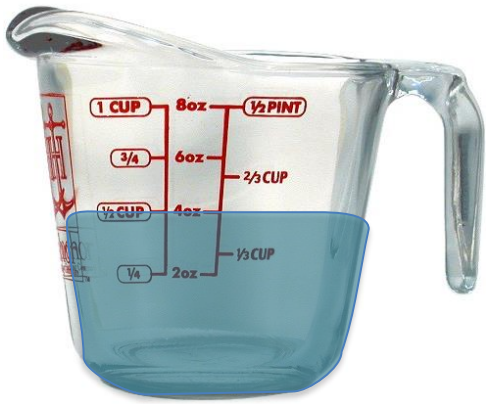
A. _____

B. _____

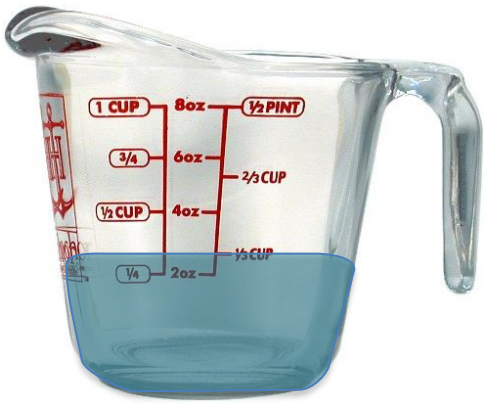
C. _____

D. _____

E. _____



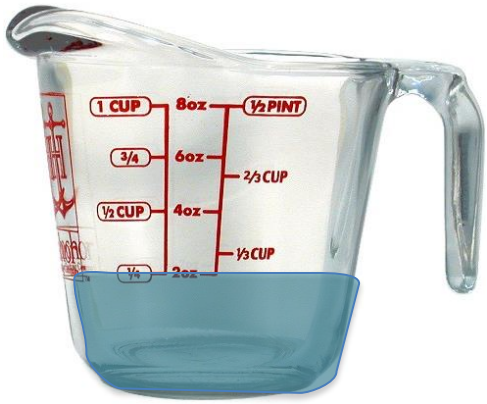
F. _____



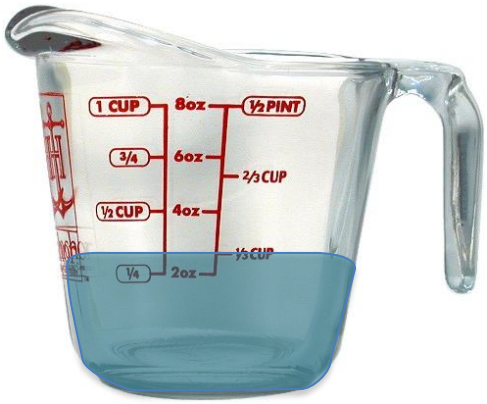
How Much?

Directions: *Look at the amount of liquid in the measuring cup. Write the amount of liquid in the cup. Remember to include units!*

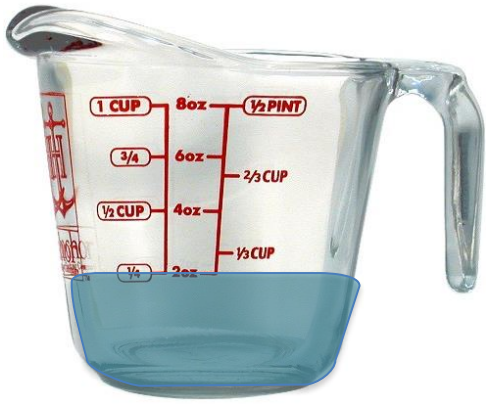
A. _____



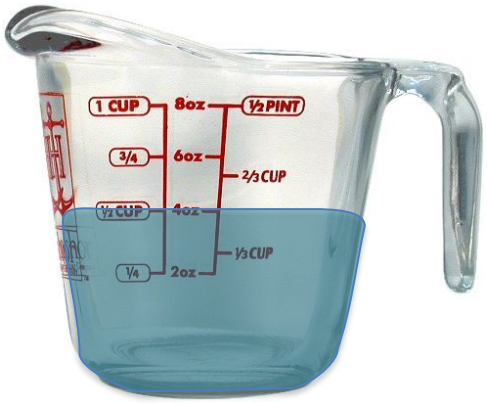
B. _____



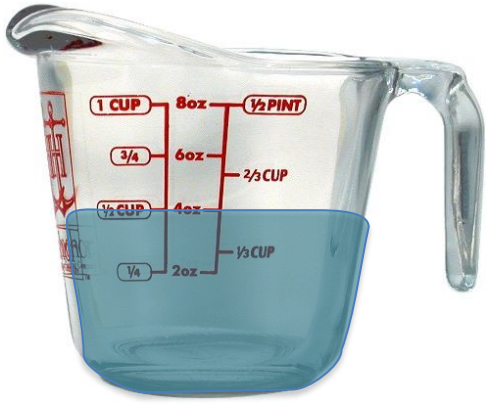
C. _____



D. _____



E. _____

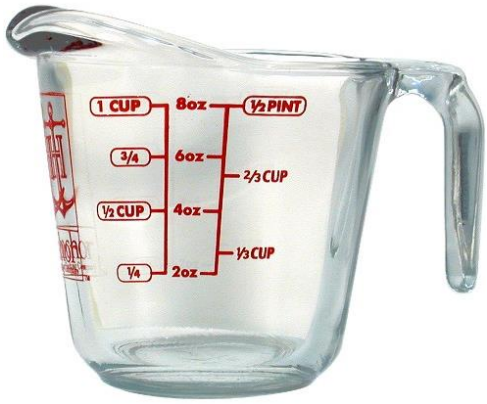


F. _____

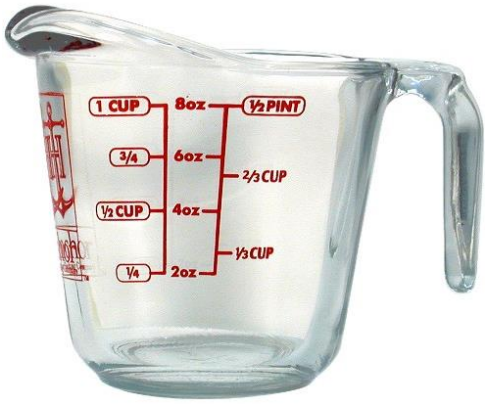
Measure Up!

Directions: *Read the measurement. Draw a line where you would need to fill the cup up to and shade it in.*

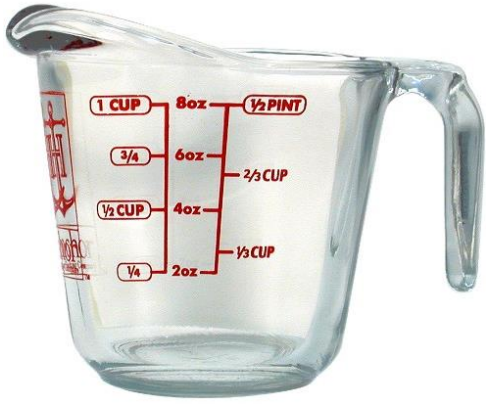
A. **1/2 cup**



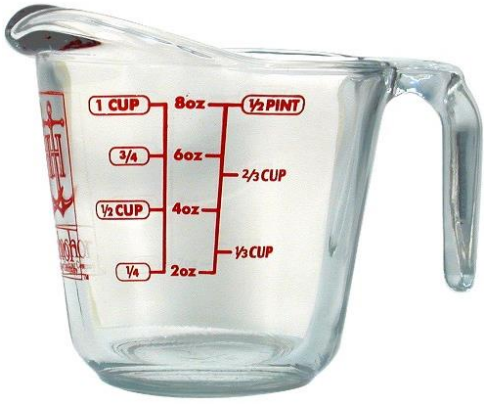
B. **1/4 cup**



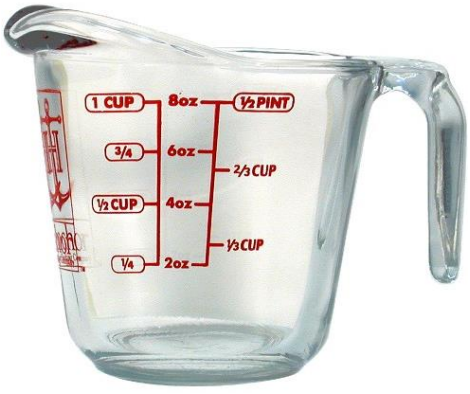
C. **1 cup**



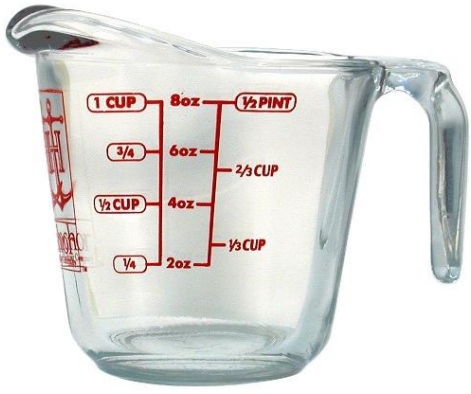
D. **1/3 cup**



E. **1 cup**



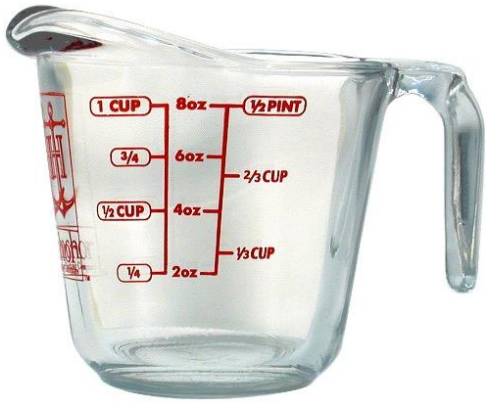
F. **1/2 cup**



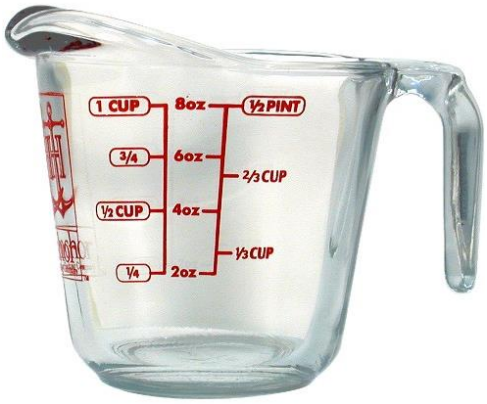
Measure Up!

Directions: *Read the measurement. Draw a line where you would need to fill the cup up to and shade it in.*

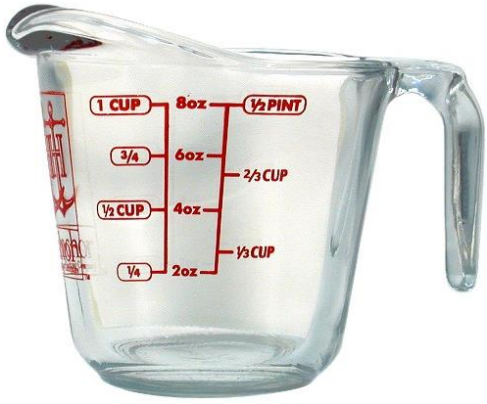
A. **1 cup**



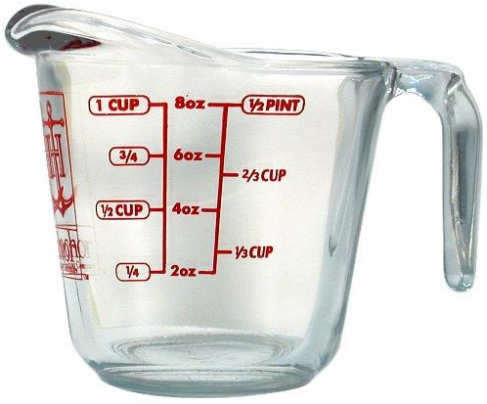
B. **1/2 cup**



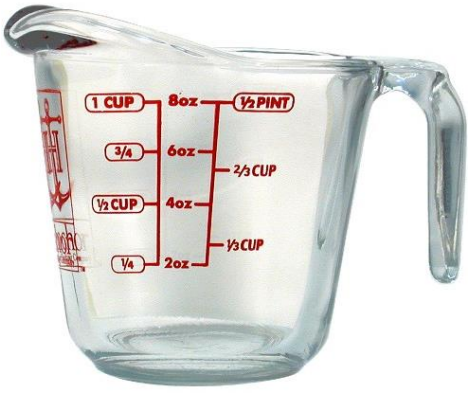
C. **1/3 cup**



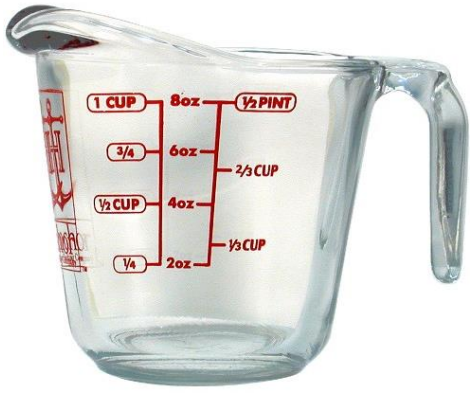
D. **1/4 cup**



E. **1/2 cup**

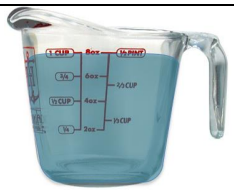
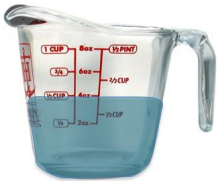
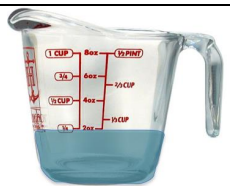


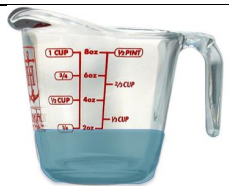
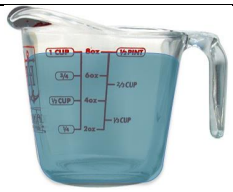
F. **1 cup**



Measurements In Order - #1

Directions: *Put the fractions in order from the biggest to the smallest, or from the smallest to the biggest.*

	BIGGEST			SMALLEST
Fraction				
Picture				

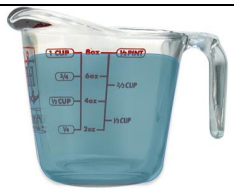
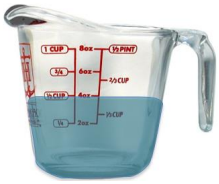
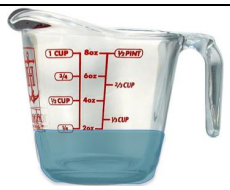
	SMALLEST			BIGGEST
Fraction				
Picture				

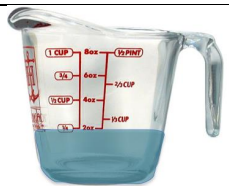
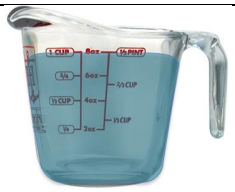
	BIGGEST			SMALLEST
Fraction				

	SMALLEST			BIGGEST
Fraction				

Measurements In Order - #2

Directions: *Put the fractions in order from the biggest to the smallest, or from the smallest to the biggest.*

	BIGGEST			SMALLEST
Fraction				
Picture				

	SMALLEST			BIGGEST
Fraction				
Picture				

	BIGGEST			SMALLEST
Fraction				

	SMALLEST			BIGGEST
Fraction				

Higher level standards:

CCSS.Math.Content.2.MD.A.3 Estimate lengths using units of inches, feet, centimeters, and meters.
CCSS.Math.Content.2.MD.A.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.
CCSS.Math.Content.2.MD.B.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.
CCSS.Math.Content.2.MD.D.9 Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.
CCSS.Math.Content.1.MD.A.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object.