Fractions for Measuring

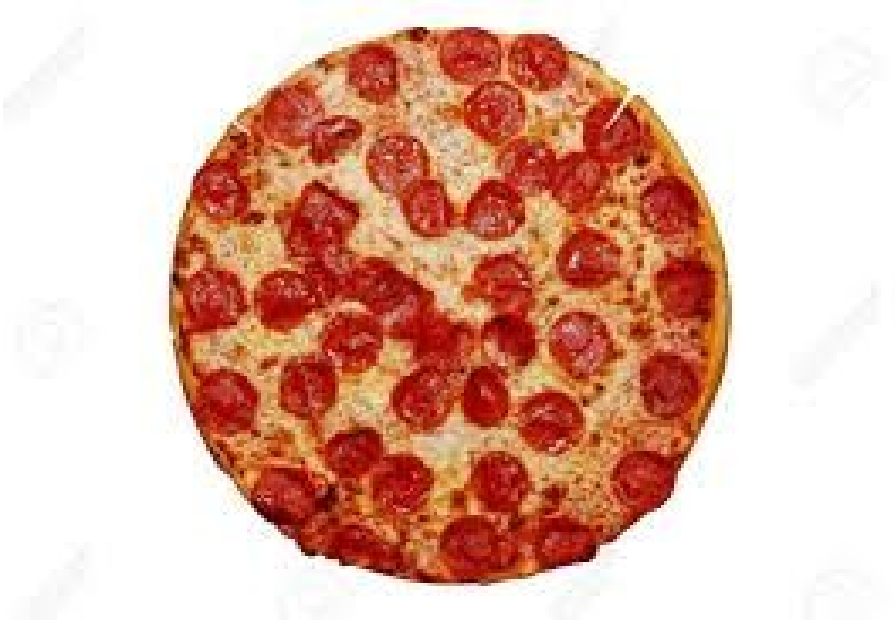
In order to measure things, you need to know the basics of fractions. Don't freak out! This is going to be easy. Some of you may already know this. In that case, this will be easy work. AND, I will give you a positive for finishing the packet.

What is a fraction?

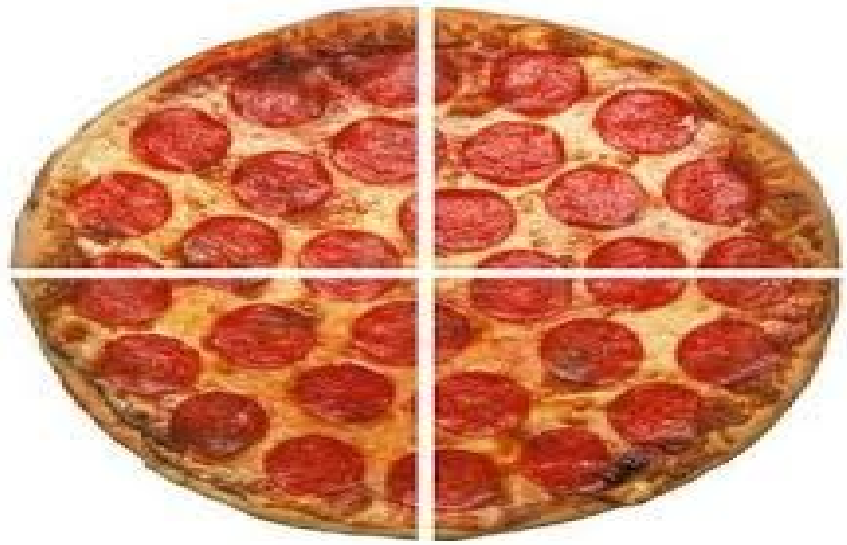
A fraction is a section of a complete thing (a whole)

Example:

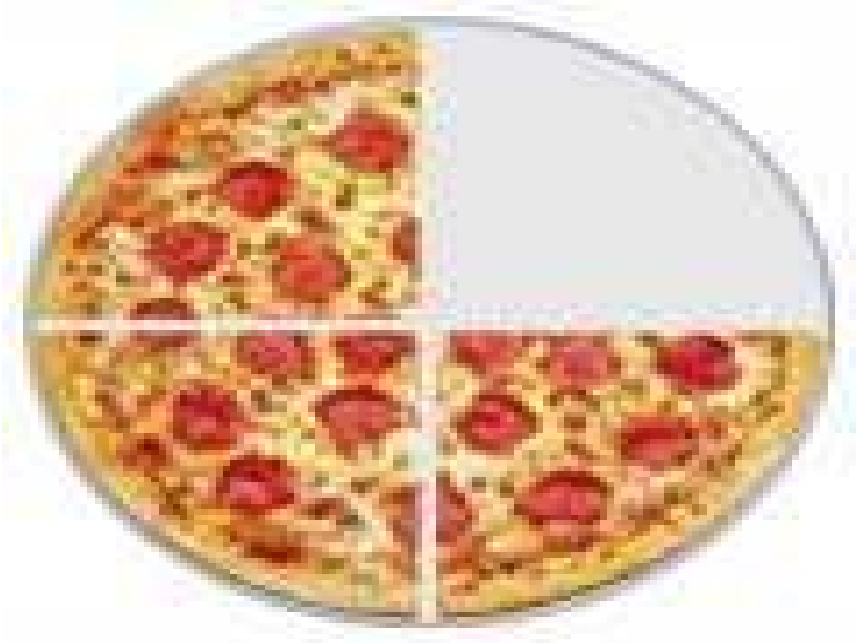
You have a whole pizza.



You cut the whole pizza into 4 equal slices.



You take one slice and eat it.



You are left with a fraction(a section) of the whole pizza. You now have 3 of the 4 slices you once had. You have ¾ of a pizza.

Parts of a fraction:

Numerator

$$\frac{3}{4}$$

Denominator

Numerator = Number of parts you have. This is how many slices you have left of your pizza.

Denominator = Number of equal parts in a whole. This is the number you have after you sliced your pizza into 4 equal slices.

Another example:

You now have a new whole pizza.

This time you cut it into 2 equal slices.

You then eat one slice.

You are left with 1 of the 2 slices you once had. A fraction(a section) of the whole pizza. You have ½ of a pizza.

Parts of a Fraction:

Numerator

$$\frac{1}{2}$$

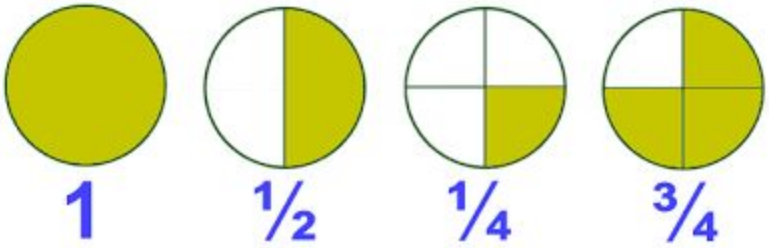
Denominator

Numerator = Number of parts you have. This is how many slices you have left of your pizza.

Denominator = Number of equal parts in a whole. This is the number you have after you sliced your pizza into 2 equal slices.

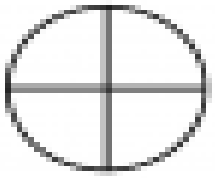
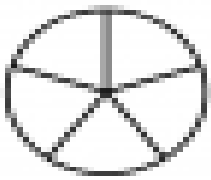
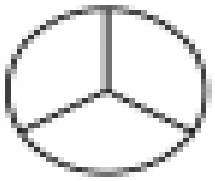
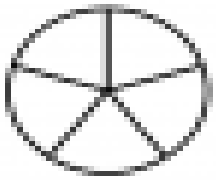
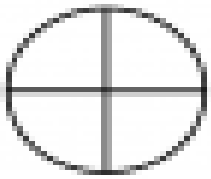
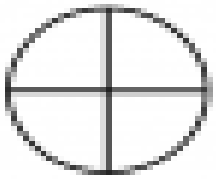
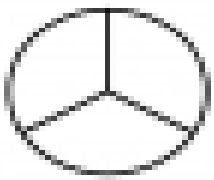
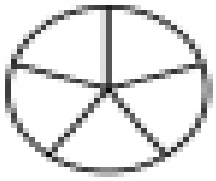
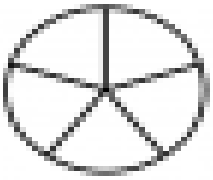
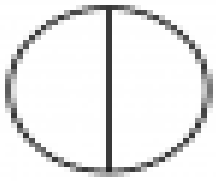
Let's practice:

Look at the shaded circles below. The first circle is colored in completely. It represents 1 whole. The second circle is half green and half white. 2 different sections which means the denominator is 2. Only 1 section is colored in, so the numerator is 1. You have ½.



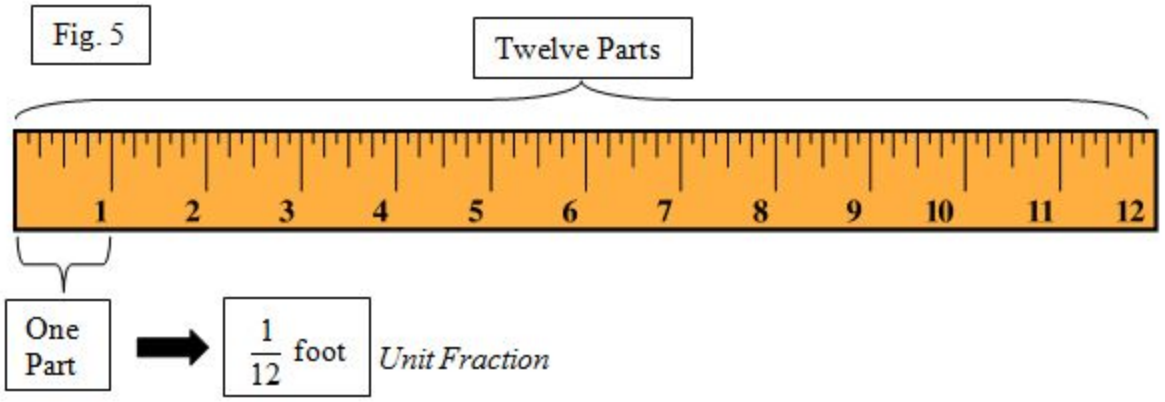
Using the examples above as an example, color in the fractions on the worksheet found on the next page. Ask your instructor for a copy of the worksheet. Do not use the worksheet in the binder. Ask for help if you need it.

Fractions

 Color $\frac{1}{4}$	 Color $\frac{2}{5}$
 Color $\frac{1}{3}$	 Color $\frac{1}{5}$
 Color $\frac{2}{4}$	 Color $\frac{3}{4}$
 Color $\frac{2}{3}$	 Color $\frac{4}{5}$
 Color $\frac{3}{5}$	 Color $\frac{1}{2}$

Connecting fractions to measuring:

Just like with the pizza example above, a distance can be broken down from whole sections to smaller fractions. For example, 1 foot can be broken down into 12 seperate inches.



Whole inches can be found on a tape measure by looking for the lines that go from edge to edge of the tape. These lines will also have a bold number next to them. The picture below shows inches 1 through 3 on a tape measure.

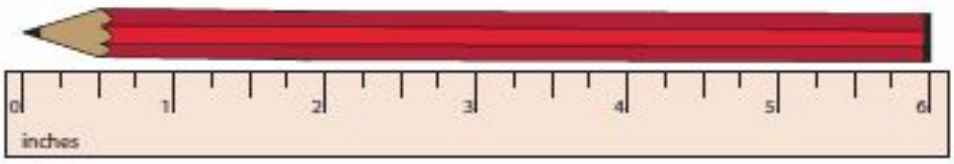
Let's practice: Complete the worksheet.Ask your instructor for a copy of the worksheet. Do not use the worksheet in the binder. Ask for help if you need it.

Name : _____ Score : _____

Measuring Objects

Measure each object to the nearest inches.

1)



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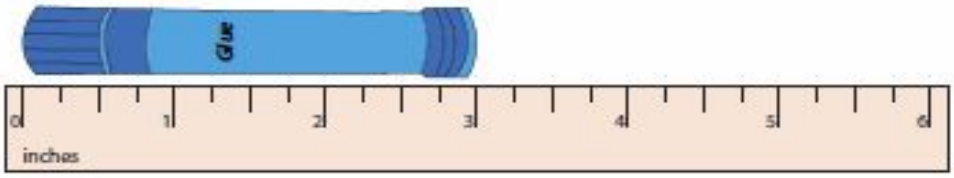
2)



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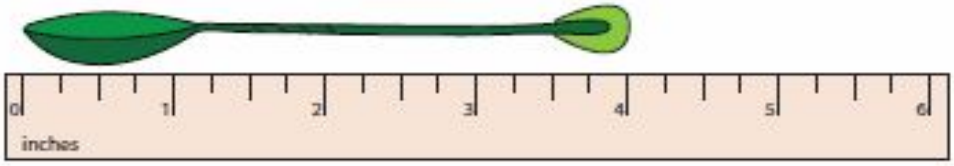
3)



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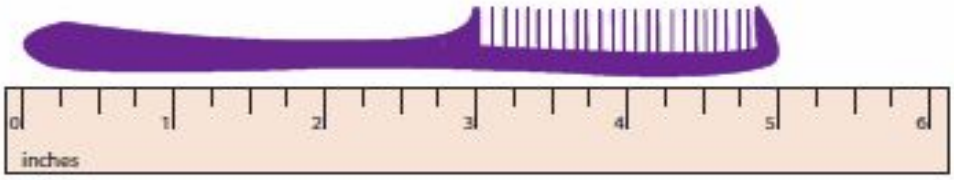

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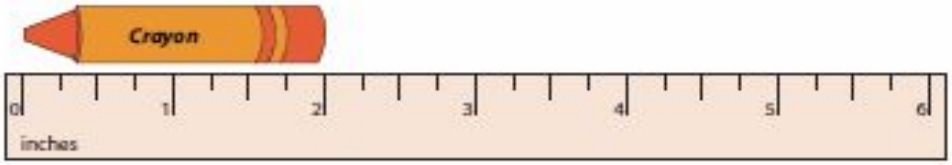

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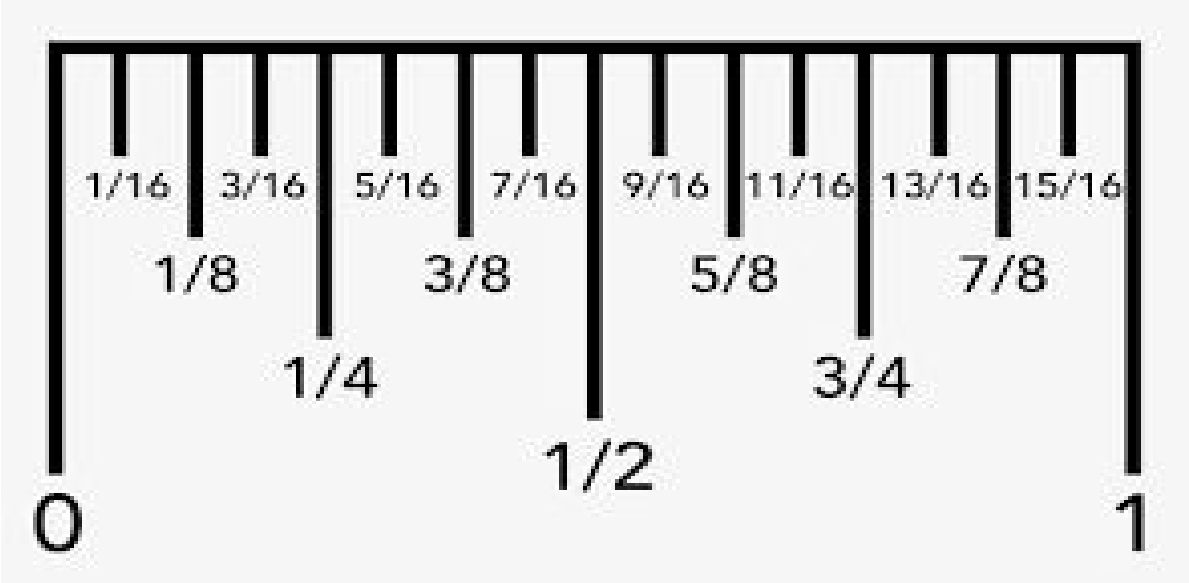
Printable Math Worksheets @ www.mathworksheets4kids.com

Fractions of an Inch

An inch can be broken down into fractions of an inch. This can be seen in the picture below. Don't get worried about the bigger numbers here, it's all going to make sense soon. Look at the different sizes of lines. The big line in the middle represents ½"(half inch). Remember what you have already learned. The bottom number(denominator) tells you how many equal parts are in a whole inch. In this case we have 2 equal parts.



Now look at the next 2 biggest lines. These lines represent ¼"(quarter inch). **Answer the following questions in your notebook. Write out the question and your answer.**

What does the denominator tell you?

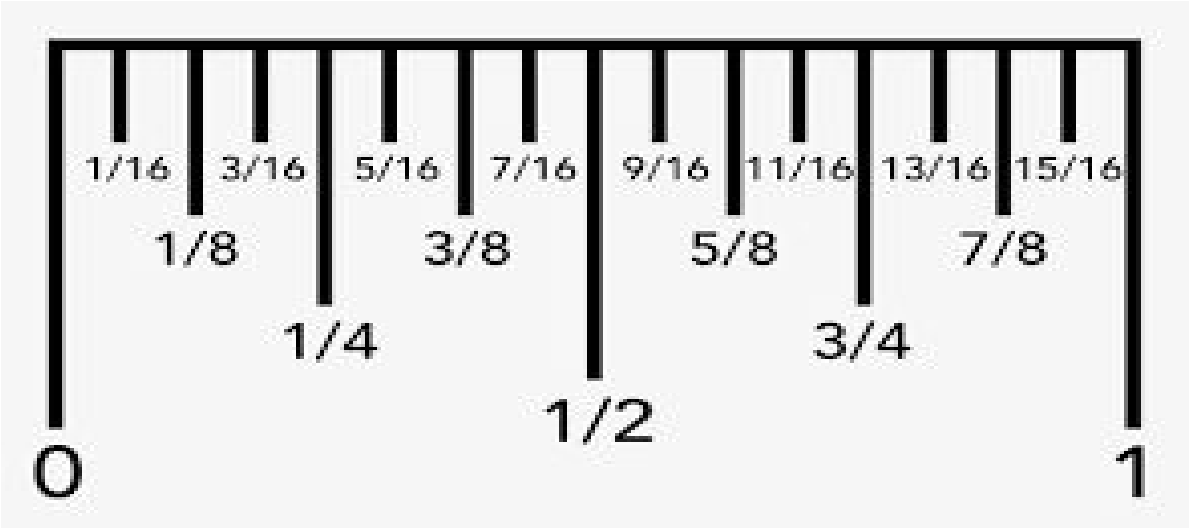
When dealing with ¼", how many equal parts are there in an inch?

Next, look at the lines that are a little smaller than the ¼" lines. These are the ⅛"(eighth inch). **Answer the following questions in your notebook. Write out the question and your answer.**

When dealing with 1/8", how many equal parts are there in an inch?

What does the numerator tell you?

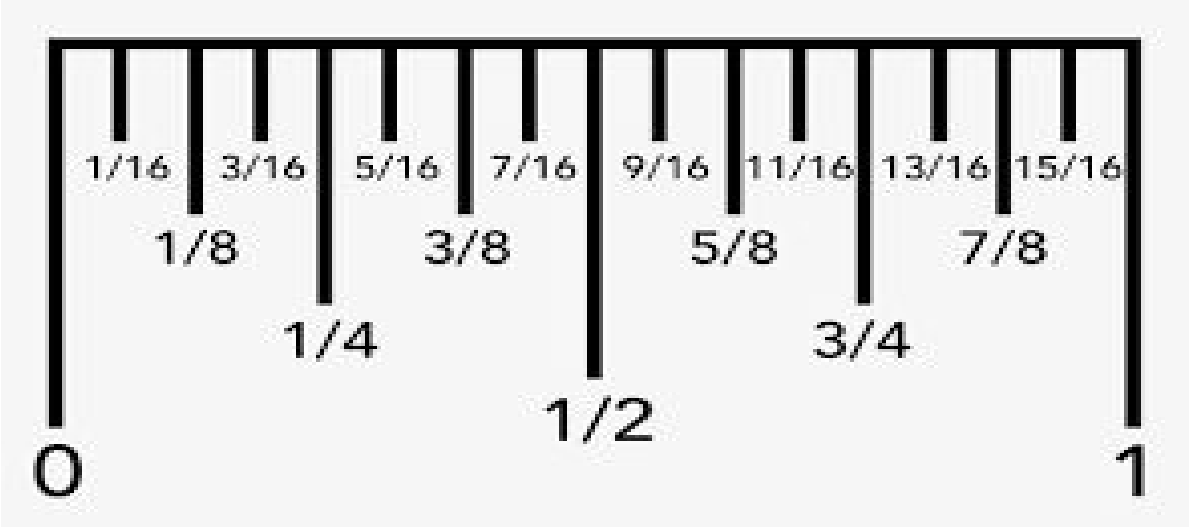
Circle the ⅜".



Finally, look at the smallest lines. These are the 1/16”(sixteenths).

How many equal parts are there in an inch when dealing with 1/16”?

Circle 5/16” and 13/16”.



Fractions and how to find them on a tape measure should make a little more sense now. If not, let your instructor know. He will gladly help you. Complete the following worksheet by writing out the different lengths. Always start at the left end of the ruler and measure over to the tick mark.