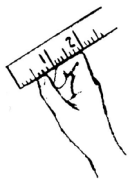
Graphic Communications

STUDENT ACTIVITY PACKET



STUDENT NAME _____ BLOCK _____

Unit Title: Reading A Ruler

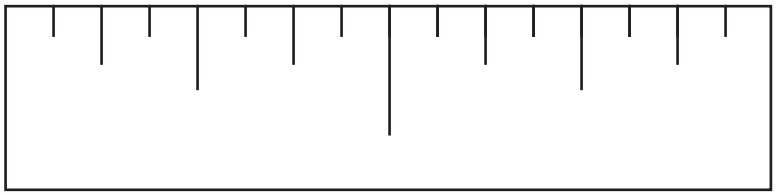
ACTIVITY PACKET GRADE SHEET

	POSSIBLE POINTS	STUDENT EVALUATION	POINTS EARNED
Learning Activity #1-Reading the Ruler	20	_____	_____
Learning Activity #2-Identifying the Correct Measurement	20	_____	_____
Learning Activity #3-Fractions Review	10	_____	_____
Learning Activity #4-Measuring Line Segments	20	_____	_____
Learning Activity #5-History of Measurement	20	_____	_____
Everything COMPLETED on time	10	_____	_____
FINAL GRADE	100	_____	_____

Learning Activity #1
Reading the Ruler

In the Graphic Communications lab, classroom or on the job, the basic measuring tool is the rule. A ruler is divided into equal parts or inches.Each inch is divided into equal fractional parts of an inch. The fractional parts are **halves (1/2), quarters (1/4), eighths (1/8), and sixteenths (1/16).** Some rules have graduations or divisions as small as thirty-seconds (1/32) and sixty-fourths (1/64). The denominators of the fractions . . . 1/2, 1/4, etc. indicate the number of like spaces of that size, which are a whole inch.

The following drawing shows an inch divided into halves, fourths, eighths, and sixteenths. Note that the 1 inch line is the longest, the 1/2 line is next in length, and so on down to the line representing 1/16 inch that is the shortest.

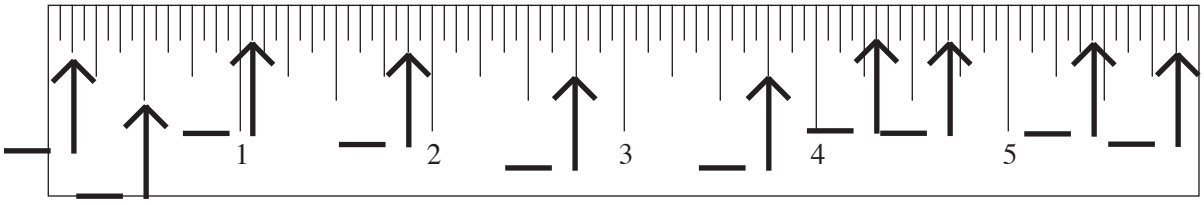


Not to Scale

Fractional measurements are alwas reduced to lowest terms. A measurement of 12/16 would read as 3/4; 4/16 as 1/4; etc.

Learning Activity #2
Identifying the Correct Measurement

Fill in the indicated measurements on the ruler.



Learning Activity #3
Fractions Review

Solve the following problems to review fractions.

1. In 1 inch, there are _____ 16ths.

2. In 1/2 inch, there are _____ 16ths.

3. In 3/4 inch, there are _____ 8ths.

4. In 1 1/8", there are _____ 8ths.

5. In 24/32, there are _____ 4ths.

7. 12/16 reduced to lowest terms is _____.

8. 48/64 reduced to lowest terms is _____.

9. 98/64 reduced to lowest terms is _____.

10. In 1 1/2 inches, there are _____ 16ths.

Learning Activity #4
Measuring Line Segments

Use a ruler to measure the following line segments.

1. _____ _____
2. _____ _____
3. _____ _____
4. _____ _____
5. _____ _____
6. _____ _____
7. _____ _____
8. _____ _____
9. _____ _____
10. _____ _____

Learning Activity #5
History of Measurement

There are two types of measuring systems: **English and Metric.**

The **English** system is based on arbitrary measurements set hundreds of years ago. The **inch** is defined as the distance between the first and second joints of the index finger. The **foot** is defined as the length of the foot. The **yard** is defined as the distance from the tip of the nose to the tip of the middle finger when the arm is outstretched.

Measurement Activity:

You will work in groups of three to answer the following questions and perform the following procedures.

1. List 5 items commonly measured in each of the following:

inches _____
feet _____
yards _____

2. What are some disadvantages of using the original definitions of inches, feet, and yards? _____
_____

3. With the ruler, measure the length of your finger between the first and second jints of your right hand (an "inch"). Do this for each member of your group and record your data here.

My "inch" _____ Member #1 _____ Member #2 _____

4. With the ruler, measure the length of your foot (an "foot"). Do this for each member of your group and record your data here.

My "foot" _____ Member #1 _____ Member #2 _____

5. With the ruler, measure the distance from the tip of your nose to the end of the middle finger on your right hand (an "yard"). Do this for each member of your group and record your data here.

My "inch" _____ Member #1 _____ Member #2 _____

6. Compare your data with other members in the class. If you were buying a gold chain by the inch, or cloth by the yeard, who would you want to measure it and why?
_____
_____

7. _____ inches = 1 foot
_____ feet = 1 yard
_____ inches = 1 yard