Architecture Basics & Scaling

January 3, 2014

Name:_____Period:_____

Measurements

1. What instrument(s) can be used to measure objects?

2. Draw lines in the space provided with the designated lengths.

   a. 2-7/8 inches

   b. 9/16 inch

   c. 1-5/8 inches

   d. 3-1/2 inches

3. Measure the following line segments and record your measurements in the space provided. Round your measurements to the nearest 1/16 inch.

   a.

   b.

   c.

   d.

Scale Drawings

1. Using the scale 1/8 inch = 1 foot, complete the following:

    a. Draw a line segment that represents a length of 12 feet.

    b. 1-7/8 inches represent how many feet?

2. Using the scale 1/4 inch = 1 foot, find the actual length in feet represented by the following lengths on the drawing:

    a. 3 inches

    b. 2-1/4 inches

    c. 4-3/4 inches

3. Make a scale drawing of a rectangular shaped room whose dimensions are 14 feet by 24 feet. You may choose the scale.

Ratios

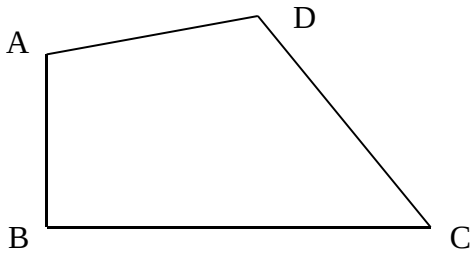
1. If segment AB is 1 inch long and segment CD is 2 inches long, express in three different ways the ratio of AB to CD.

   a.

   b.

   c.

2. Using a ruler measure line segments AB, BC, CD, and DA. Round your measurements to the nearest 1/16 inch.



   AB = _____ BC = _____

   CD = _____ DA = _____

3. Using the measurements above, write the following ratios:

   a. AB:BC

   b. AB:CD

   c. DA:BC

4. Find the ratio of the first quantity to the second. *(REMEMBER: both measurements must be in the same units before they can be made into a ratio.)*

   a. 3 ft. to 6 yd.

   b. 4.5 in. to 3-1/4 yd.

   c. 1/2 ft. to 54 in.

Proportions

1. Is $\frac{2}{3} = \frac{5}{7}$ a proportion?

2. Find the missing term. $\frac{4}{7} = \frac{x}{35}$

3. Find the missing term. $\frac{3}{12} = \frac{4}{x}$

4. Write three proportions.

   a. ___ = ___

   b. ___ = ___

   c. ___ = ___