CCSS Geometry
G3 Proportions Practice

Name _____

For each proportion below, do the following:

1) Solve for x using whatever method works for you.

2) Identify the *zoom factor* for the proportion (what do you multiply top and bottom by?)

3) Check your answer by dividing both fractions.

Example: $\frac{3}{4}=\frac{x}{24}$

a)

b)

c)

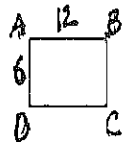
Now, you try:

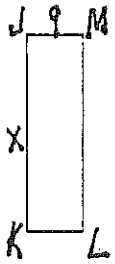
1) $\frac{5}{8}=\frac{15}{x}$ 2) $\frac{7}{5}=\frac{x}{45}$ 3) $\frac{4}{7}=\frac{28}{x}$

For each set of similar shapes, do the following:

1. Set up ratio:
2. Solve for x:
3. Identify zoom (scale) factor:
4. Check your work:

a. $ABCD \sim JKLM$





Example:

1.

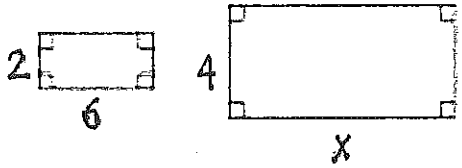
2.

3.

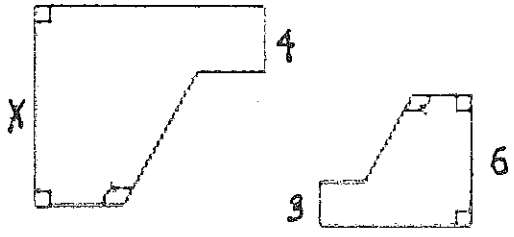
4.

Now you try (do calculations in your comp book if there is not enough space):

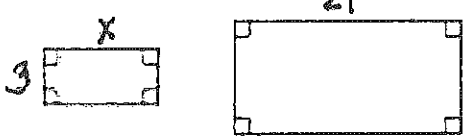
a.



b.



c.

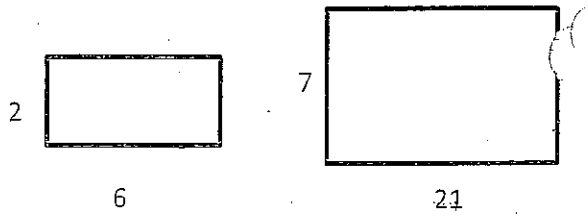


perimeter - 60

CCSS Geometry
G3 Similarity

Name:_____
Date:_____ Per _____

1. **Examine** the rectangles at the right.



   a. Use the ratios to show that these shapes are similar (figures that have the same shape, but not necessarily the same size).

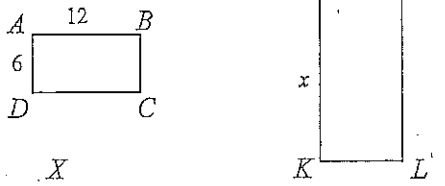
   b. What other ratios could you use?

   c. Linh claims that these shapes are not similar. When she compared the heights she wrote $\frac{2}{7}$. Then she compared the bases and got $\frac{21}{6}$. Why is Linh having trouble?

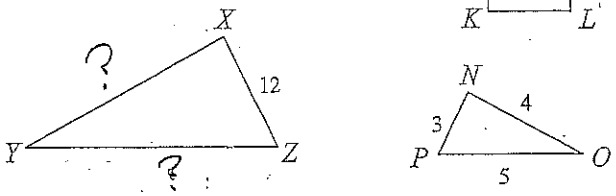
2. Each pair of figures below is similar. Solve for x.

3. The following triangles are similar. Use what you know about similar shapes to find the unknown sides.

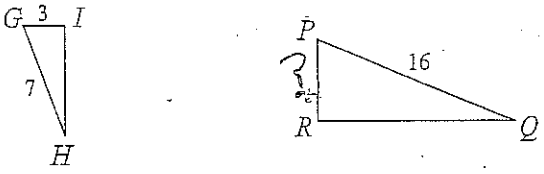
   a. $ABCD \sim JKLM$



   b. $\triangle NOP \sim \triangle XYZ$



   c. $\triangle GHI \sim \triangle PQR$



   d. $\triangle ABC \sim \triangle XYZ$