**Similar Polygons HOMEWORK**

1. For two figures to be similar, the corresponding angles must be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and the corresponding side lengths must be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_,

2. Which question has a different answer? Explain your reasoning by finding the answer to each question.

Scale Factor = \_\_\_\_\_\_\_\_

Ratio of the Areas = \_\_\_\_\_\_\_\_

Ratio of the Side Lengths = \_\_\_\_\_\_\_\_

Ratio of the Perimeters = \_\_\_\_\_\_\_\_

3. ΔABC ∼ ΔLMN

Scale Factor = \_\_\_\_\_\_\_\_\_

For #4-5, the polygons are similar. Find the value of x.

4. x = \_\_\_\_\_\_\_\_\_ 5. x = \_\_\_\_\_\_\_\_\_



For #6-7, the triangles are similar. Find the value of the variable.

6. x = \_\_\_\_\_\_\_\_\_ 7. y = \_\_\_\_\_\_\_\_\_



8. Your sister claims that when the side lengths of two rectangles are proportional, the two rectangles must be similar. Is she correct? Explain your reasoning

9. The two polygons are similar. Find the values of x and y

x = \_\_\_\_\_\_\_\_\_ y = \_\_\_\_\_\_\_\_\_

10. The equations of the lines shown are y = 4/3x + 4 and y = 4/3x − 8.

Show that ΔAOB ∼ ΔCOD.