

Math 9

Name: \_\_\_\_\_

7.2 – Similar Polygons

Date: \_\_\_\_\_

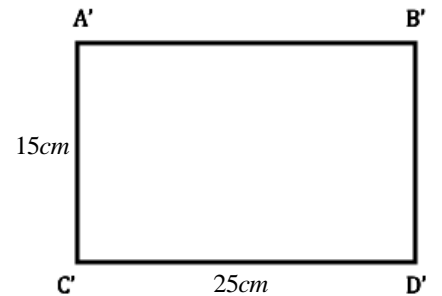
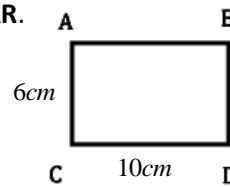
“POLY” means **MANY**...so, **POLYGON** means **“a shape that has many sides”**

When one Polygon is **ENLARGED** or **REDUCED** to produce another Polygon, we say the two Polygons are **SIMILAR**.

**MATCHING** sides are known as **CORRESPONDING** sides and matching angles are known as **CORRESPONDING** angles.

**Ex. 1:** Determine if the two rectangles given below are **SIMILAR**.

i. What are the corresponding angles?



ii. What are the corresponding sides?

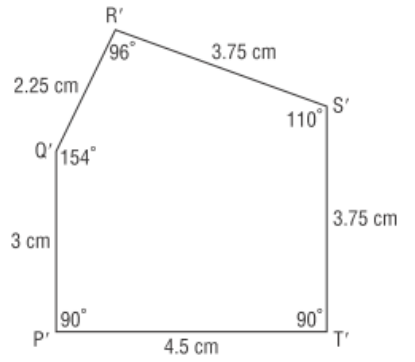
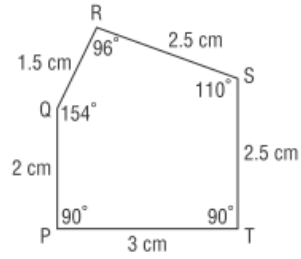
iii. Are the corresponding angles equal to each other?

iv. Have all the corresponding sides been scaled up/down by the same scale factor?

*The Scale Factor* =      =      =      =      =      =

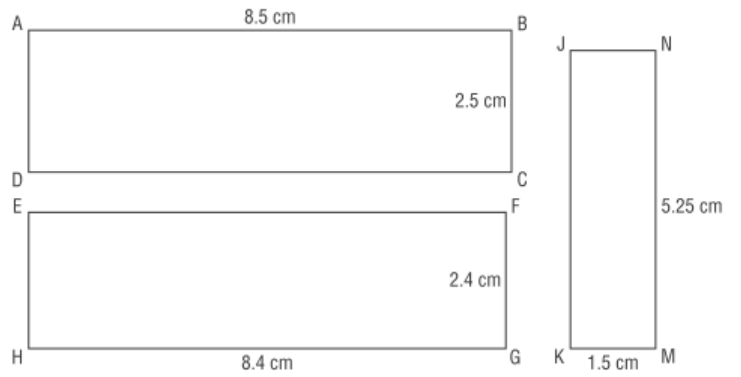
**Ex. 2:** Determine if the two polygons are Similar.

**Are all corresponding angles equal?**



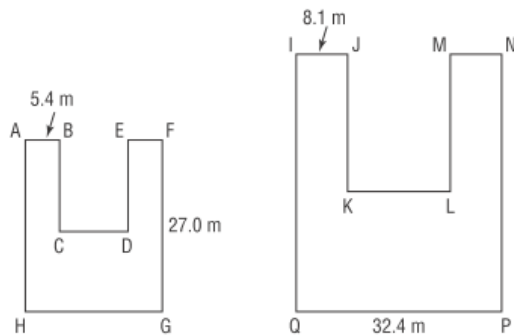
**Are the ratios of all corresponding sides equal?**

**Ex. 3:** Which pair of rectangles are similar?



**Ex. 4:** The two garden plots are similar.

a. Determine the length of side GH.



b. Determine the length of side NP.

**Ex 5:** Polygon A is half the size of Polygon B. Are the two polygons similar? Explain your answer.



**Ex 6:** Do you agree or disagree with the following statement? Why? *"All circles are similar."*