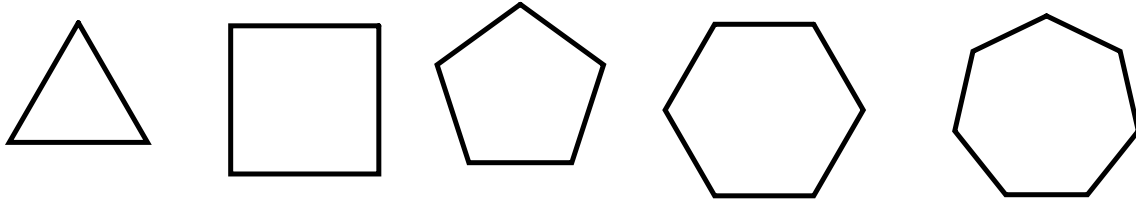


## Section 7.3: Similar Polygons

A **Polygon** is a closed shape with straight sides. Exactly 2 sides meet at a vertex.

A **Regular Polygon** has equal sides and equal angles.

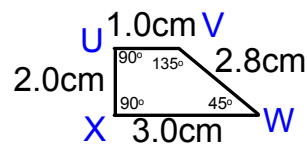
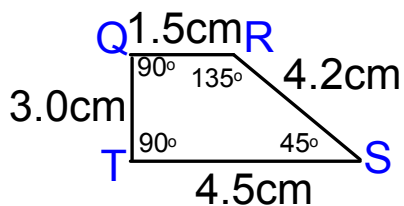


When one polygon is an enlargement or reduction of another polygon, we say the polygons are **similar**.

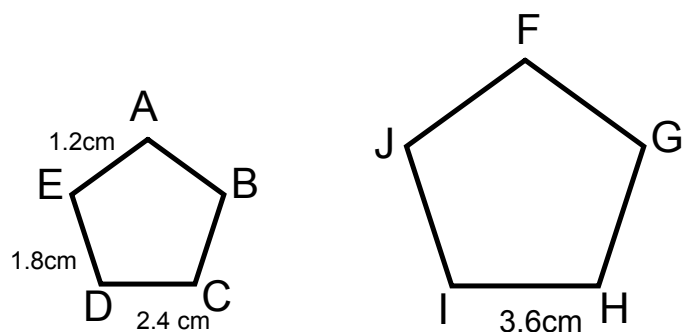
When 2 polygons are similar:

- matching angles are equal  
AND
- matching sides are proportional

**Example 1:** Are these polygons similar?



**Example 2:** The following figures are similar.  
Determine the length of  $JI$  and  $JF$ .



**Example 3:** Find the length of  $ZY$ .

