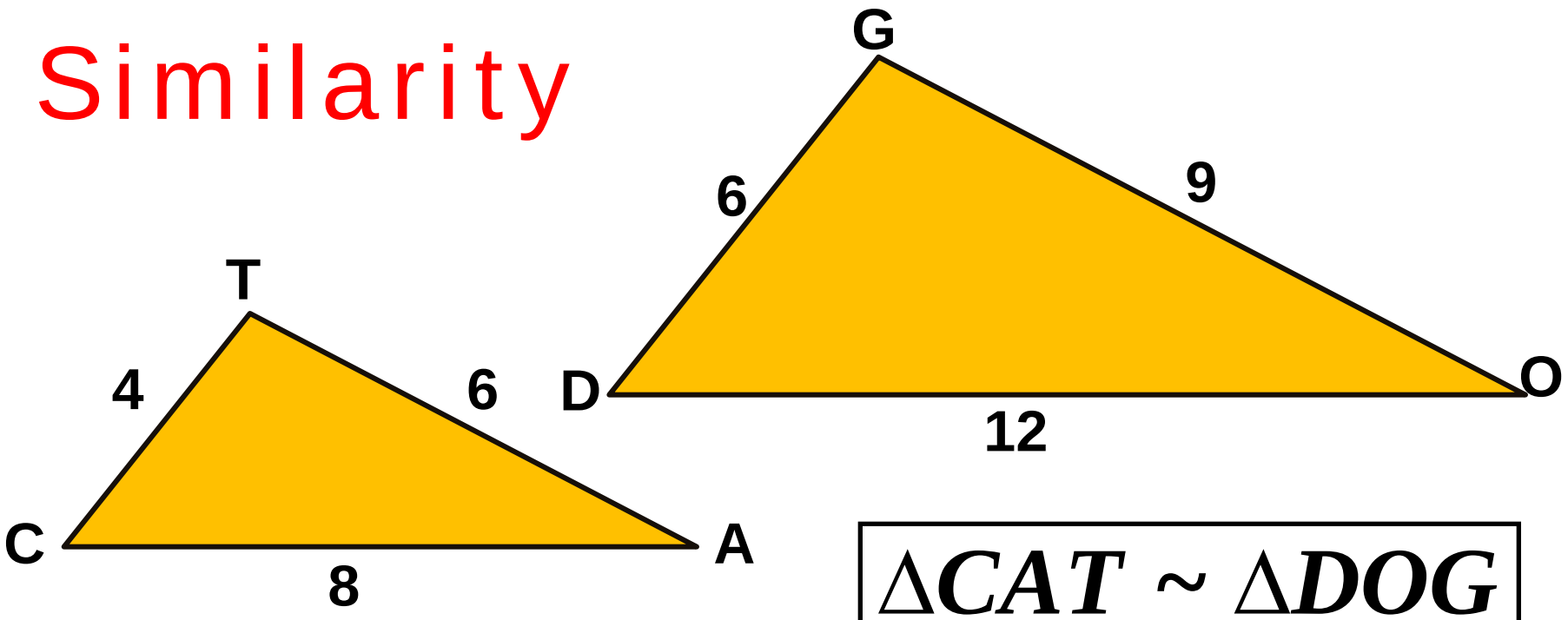
7.3 & 7.4

SIMILARITY BY AA, SSS, & SAS

Similarity

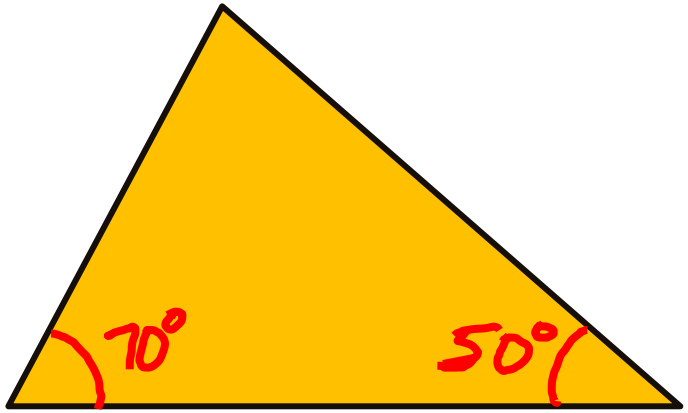


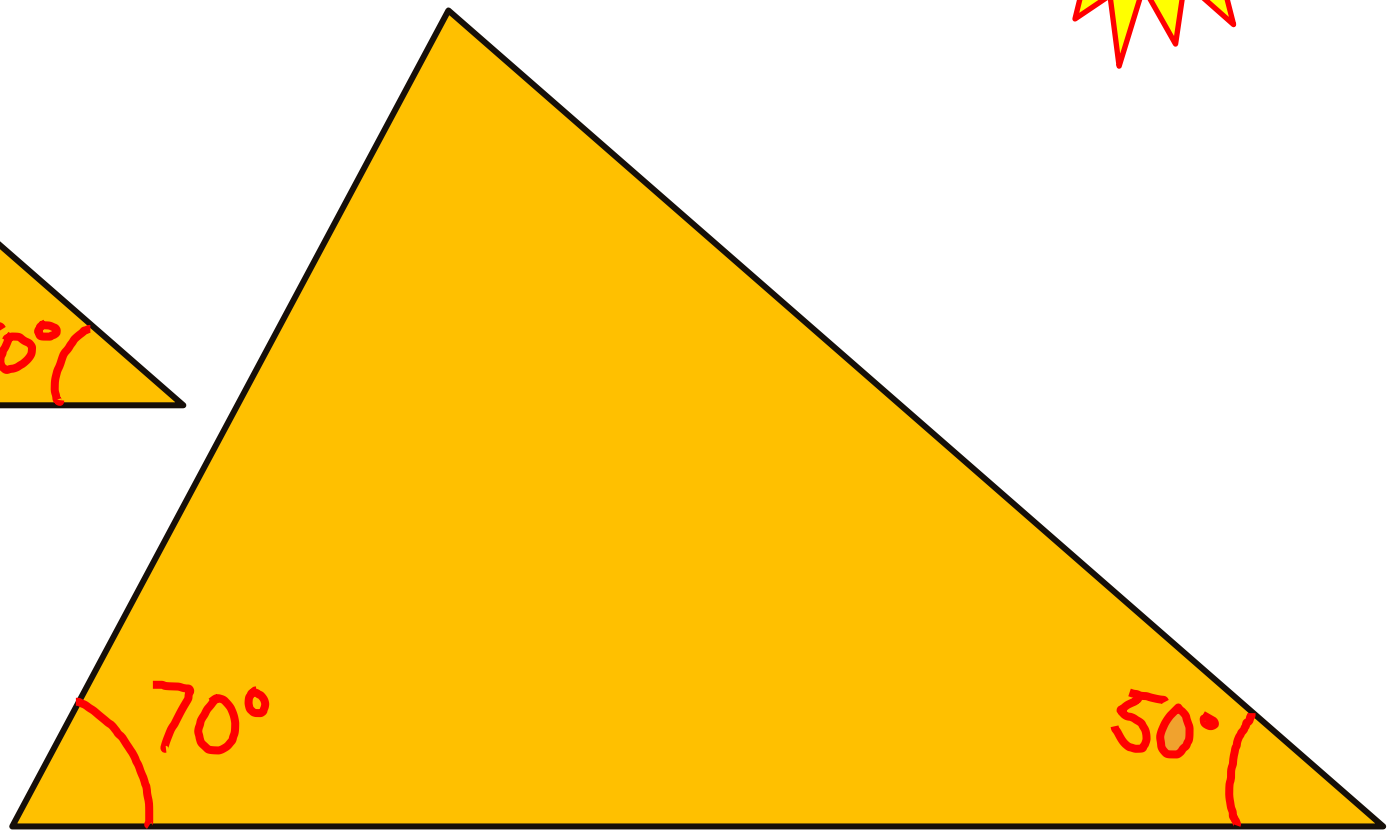
$\Delta CAT \sim \Delta DOG$

- **Same _____, different _____**
- **Corresponding angles are _____**
- **Corresponding sides are _____**

Angle-Angle Similarity Postulate

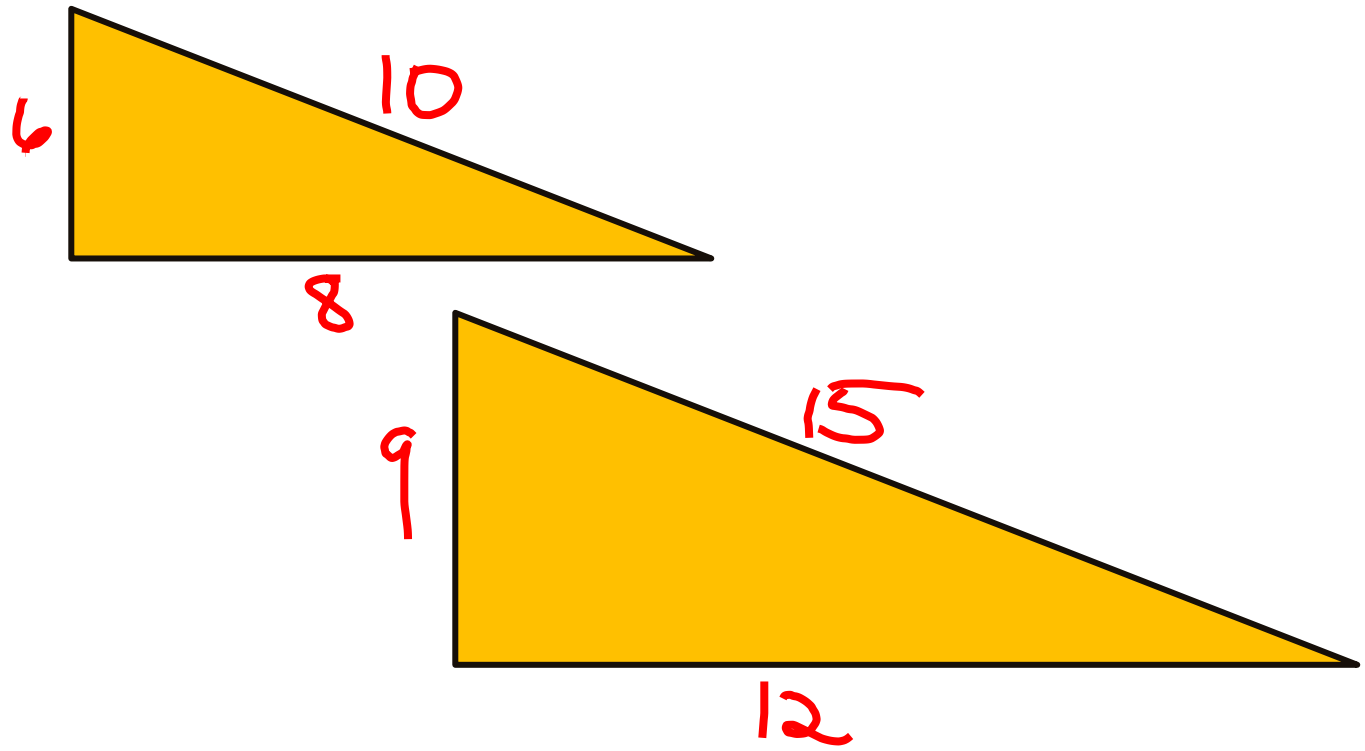
POK





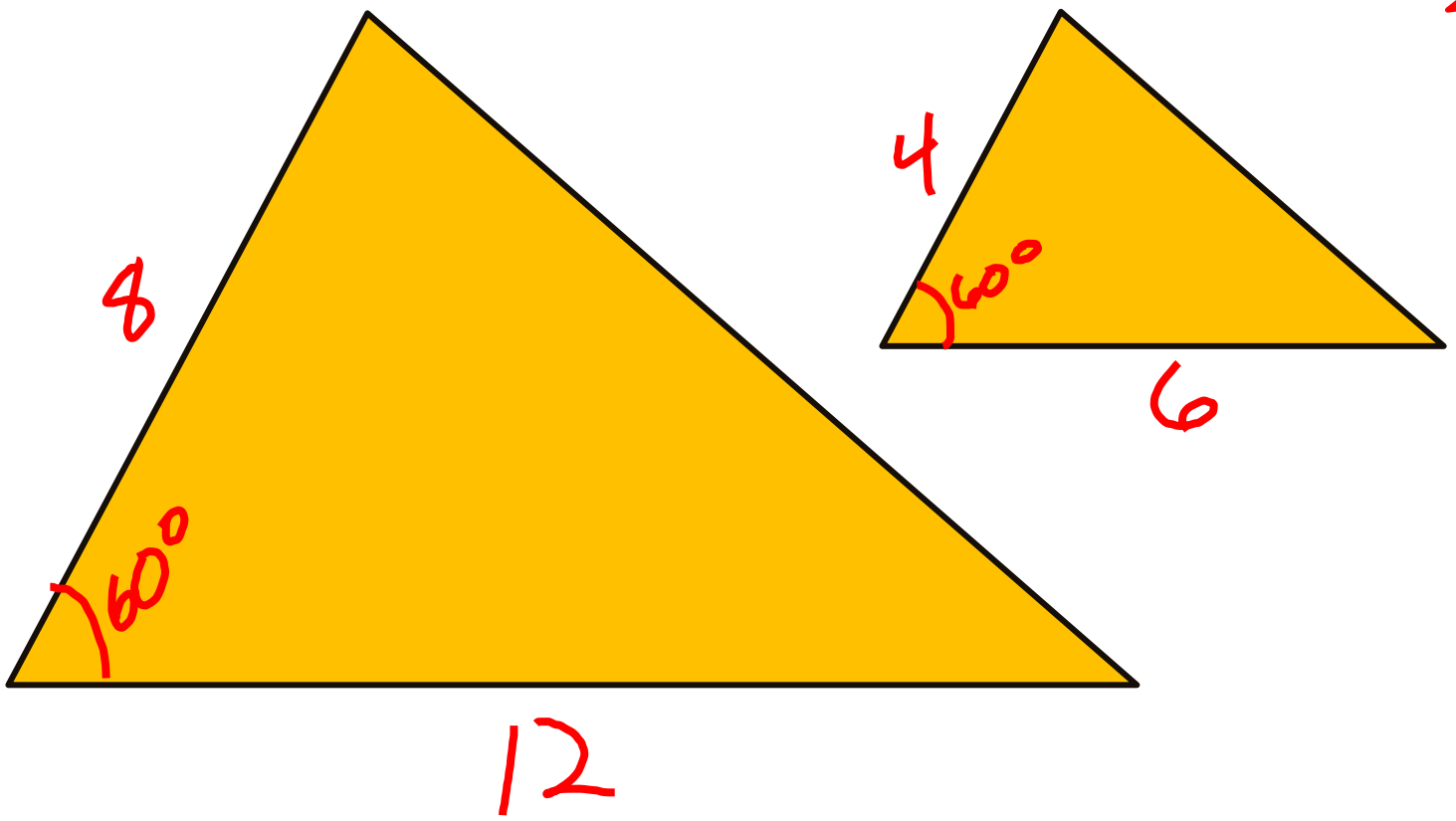
If _____ angles in one triangle are congruent to _____ angles in another triangle, then the triangles are _____ .

Side-Side-Side Similarity Theorem



If _____ sides of two triangles are _____, then the two triangles are _____.

Side-Angle-Side Similarity Theorem

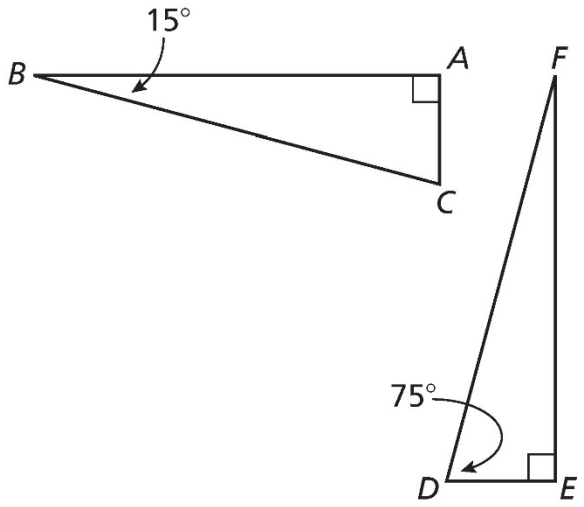


If _____ sides of one triangle are _____ to two sides in another triangle AND the included angles of both pair of sides are _____, then the two triangles are _____.

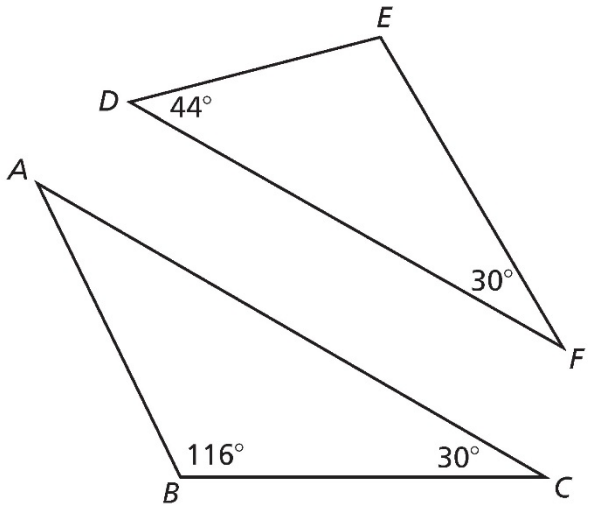
Practice

Determine whether the triangles are similar. If they are, write a similarity statement. Explain your reasoning.

1)



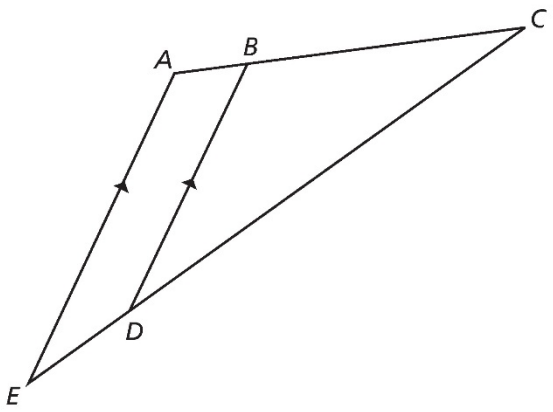
2)



Practice

Show (or prove) that the two triangles are similar.

3)



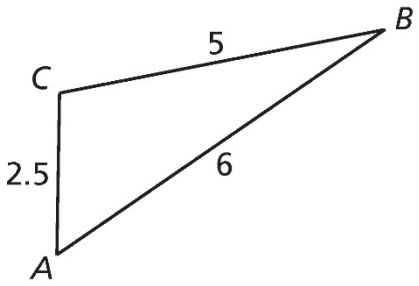
Practice

4) Determine if it is possible for ΔHJK and ΔPQR to be similar. Explain your reasoning.

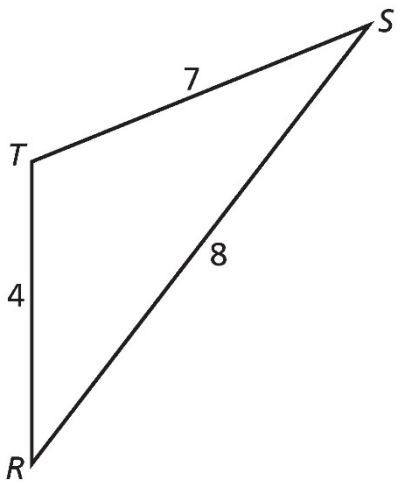
$$m\angle H = 100°, m\angle K = 46°, m\angle P = 44°, \text{and } m\angle Q = 46°$$

Practice

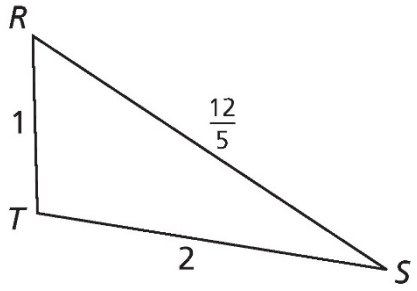
5) **determine whether $\triangle RST$ is similar to $\triangle ABC$.**



a)



b)



Practice

6) Find the value of x that makes $\triangle RST \sim \triangle HGK$.