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

**3 Ways to Prove Triangles are Similar**

**AA~ Postulate**:

If two angles of one triangle are congruent to two angles of another, then the triangles are similar.

 

**SAS~ Postulate**:

If one angle of one triangle is congruent to the one angle of another triangle and the adjacent sides are proportional, then the triangles are similar.

 

**SSS~ Postulate**:

If all three sides of one triangle are proportional to corresponding sides of another triangle, then the triangles are similar.

 

**Practice: Explain why the triangles are similar, and write a similarity statement.**

1. RQS~\_\_\_\_\_\_\_\_\_\_ by \_\_\_\_\_\_ 2) DEF~\_\_\_\_\_\_\_\_\_\_ by \_\_\_\_\_\_



 

1. ABC~\_\_\_\_\_\_\_\_\_\_ by \_\_\_\_\_\_ 4) ABC~\_\_\_\_\_\_\_\_\_\_ by \_\_\_\_\_\_

 

1. QPR~\_\_\_\_\_\_\_\_\_\_ by \_\_\_\_\_\_ 6) AEF~\_\_\_\_\_\_\_\_\_\_ by \_\_\_\_\_\_

  

 7) HGJ~\_\_\_\_\_\_\_\_\_\_ by \_\_\_\_\_\_ 8) RST~\_\_\_\_\_\_\_\_\_\_ by \_\_\_\_\_\_

 

**Explain why the triangles are similar, and find each length.**

 9) Similar by \_\_\_\_\_\_ and GK = \_\_\_\_ 10) Similar by \_\_\_\_\_\_ and RQ = \_\_\_\_\_

  

 11) Similar by \_\_\_\_\_\_ and MN = \_\_\_\_ 12) Similar by \_\_\_\_\_\_ and DE = \_\_\_\_

  