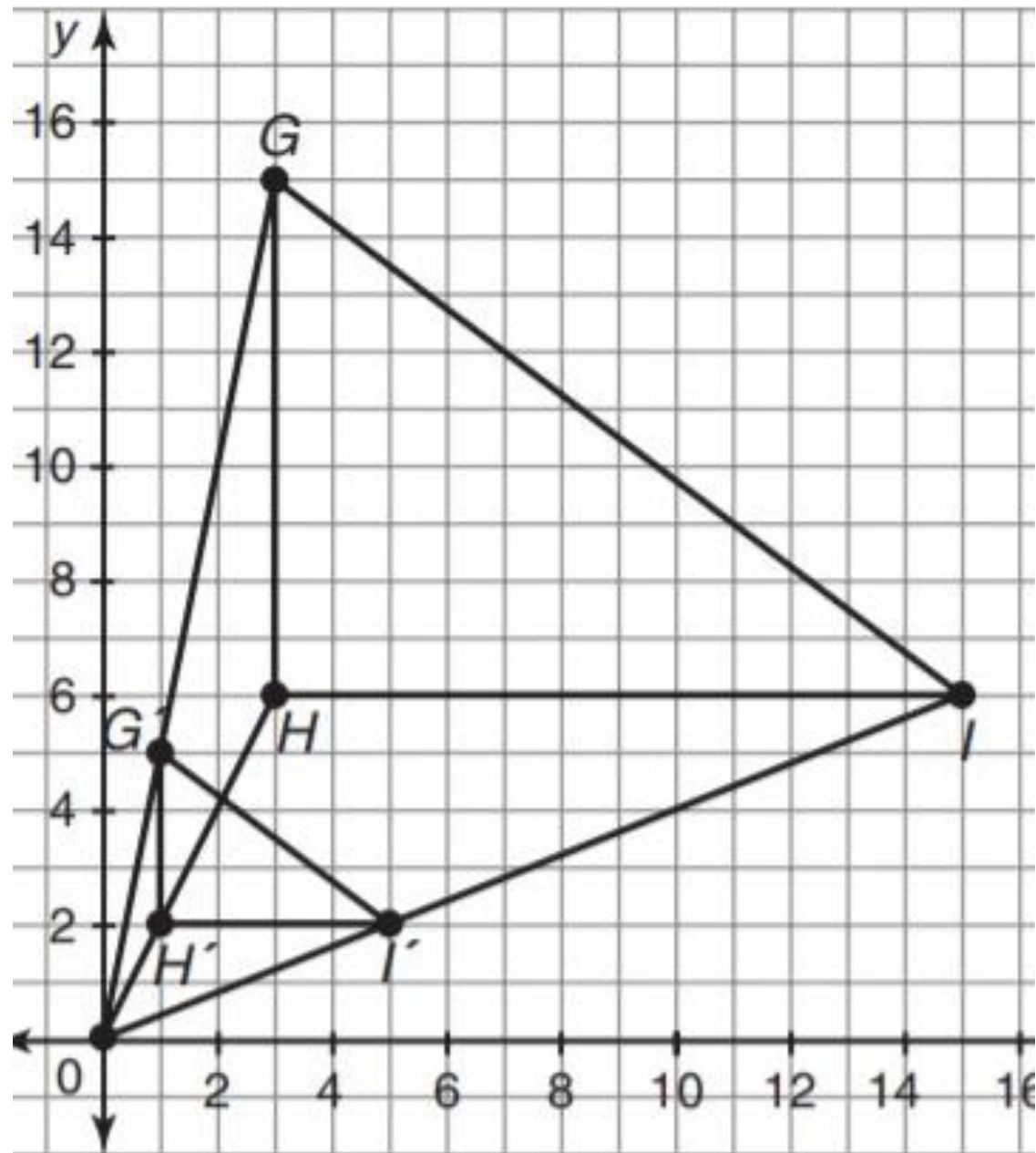


Find the scale factor



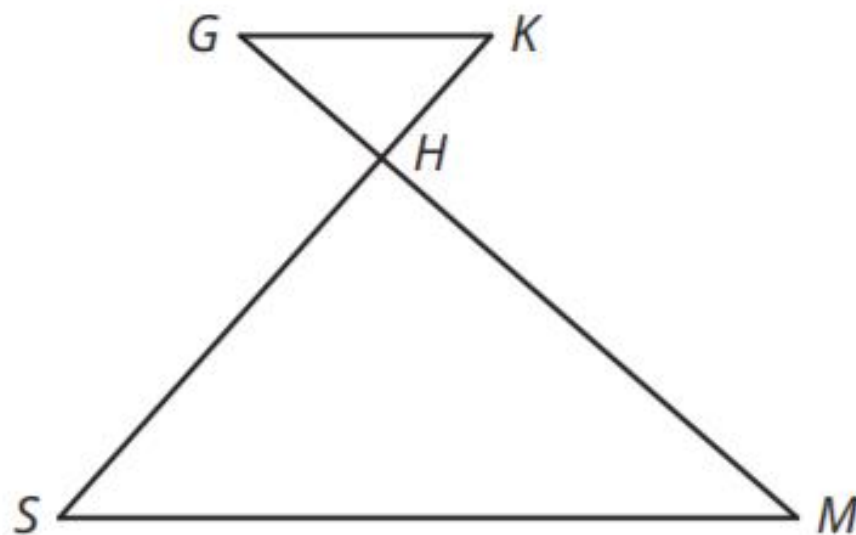
**Similar triangles** are triangles where all pairs of corresponding angles are congruent and the lengths of all corresponding sides are proportional. Similar triangles have the same shape but not always the same size.

**1.  $\triangle HRY \sim \triangle JPT$ .**

The symbol  $\sim$  represents similarity.

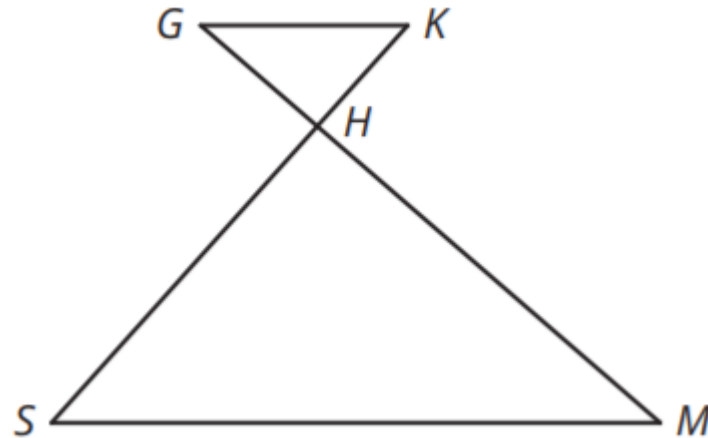
**Sketch a diagram that illustrates this similarity statement and list all of the pairs of congruent angles and all of the proportional sides.**

2. Consider the figure shown. What conditions are necessary to show  $\triangle GHK$  is similar to  $\triangle MHS$ ?

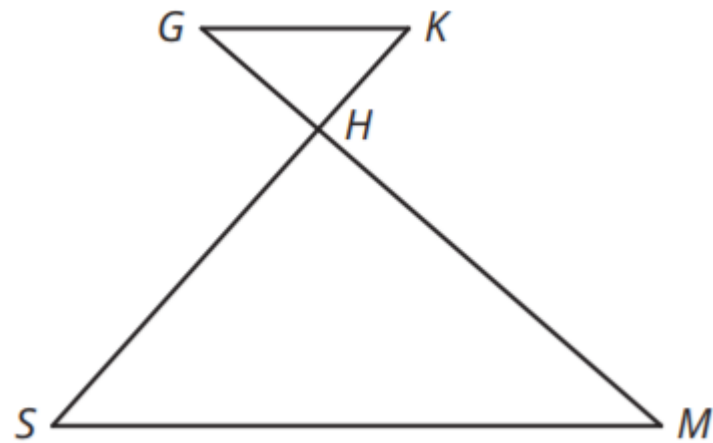


3. Consider three separate cases for the diagram shown in Question 2. For each case, determine whether this given information is enough to prove that the two triangles are similar. Explain why you think they are similar or provide a counterexample if you think the triangles are not similar.

a. Suppose  $4GH = MH$ .



b. Suppose  $\overline{GK}$  is parallel to  $\overline{MS}$ .



c. Suppose  $\angle G \cong \angle S$ .

