

6.3 Prove Triangles Similar by AA

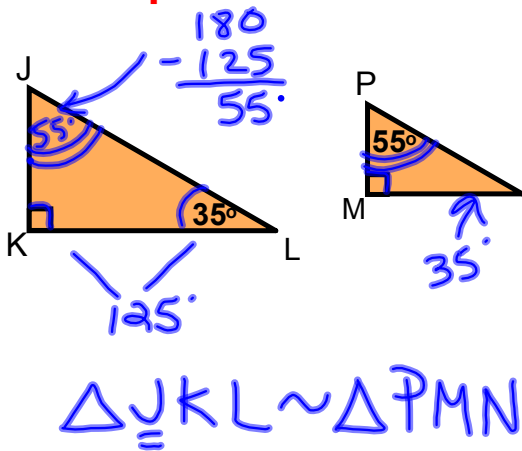


AA (Angle-Angle) Similarity Postulate

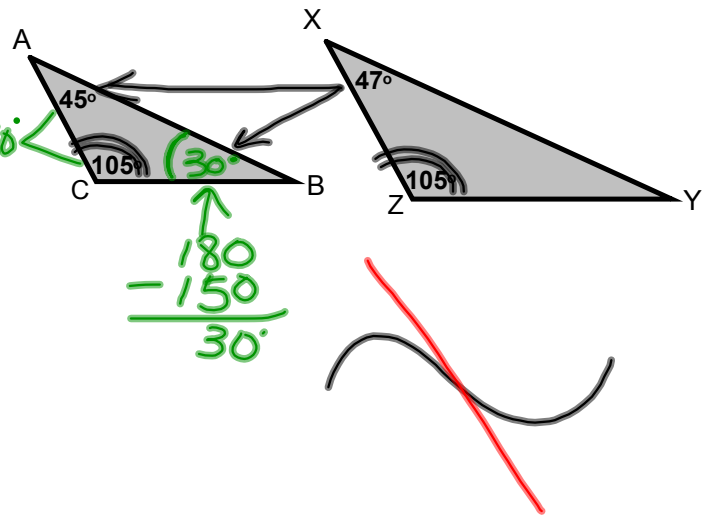
If two of one triangle are congruent to two of another triangle, then the triangles are .

Are the triangles similar?

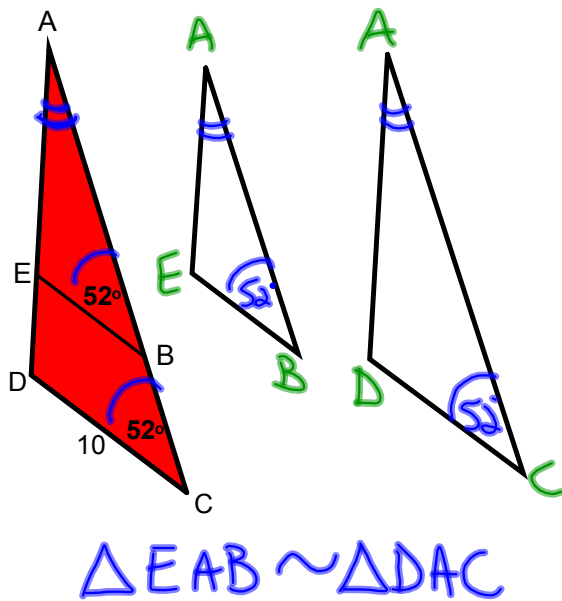
Example 1:



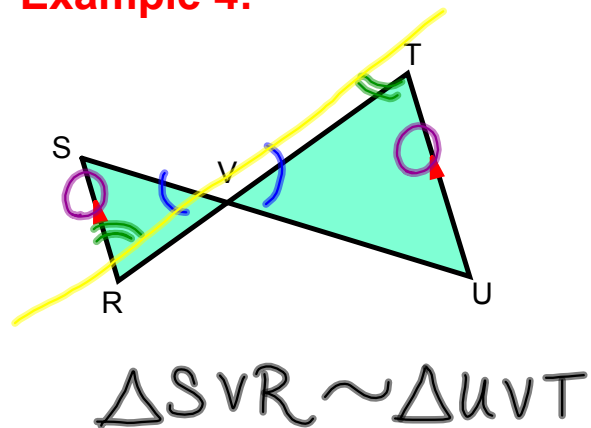
Example 2:



Example 3:

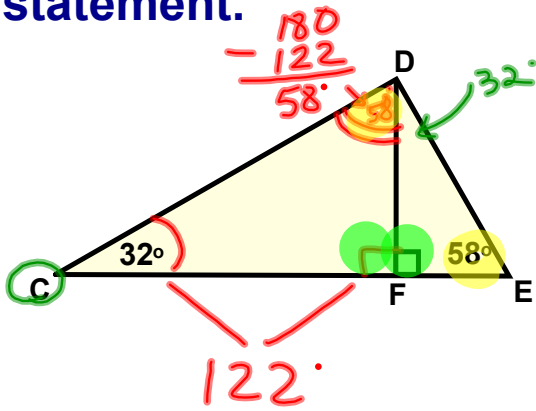


Example 4:

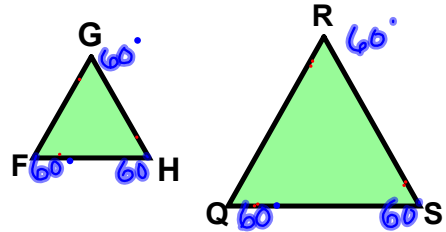


Example 5:

Show that the triangles are similar. Write a similarity statement.



$$\triangle CDF \sim \triangle DEF$$



$$\triangle GFH \sim \triangle RSQ$$

Example 6:

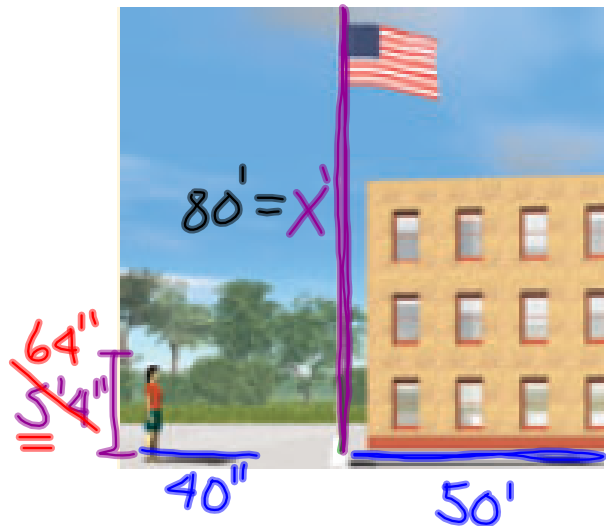
A flagpole casts a shadow that is 50 feet long. At the same time, a woman standing nearby who is five feet four inches tall casts a shadow that is 40 inches long. How tall is the flagpole to the nearest foot?

$$\frac{64''}{x'} \times \frac{40''}{50'}$$

$$\frac{3200}{40} = \frac{40x}{40}$$

$$80' = x$$

$$\begin{array}{r} 12 \\ .5 \\ \hline 60 \\ + 4 \\ \hline 64'' \end{array}$$



Questionnaire