Geometry

6.5 Prove Triangles Similar by SSS and SAS

## SSS Similarity

similar

proportional

sides

measures

If the \_\_\_\_\_\_\_\_\_\_\_\_ of the corresponding \_\_\_\_\_\_\_ of two triangles are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, then the triangles are \_\_\_\_\_\_\_\_\_\_\_\_.

## SAS Similarity

sides

proportional

sides

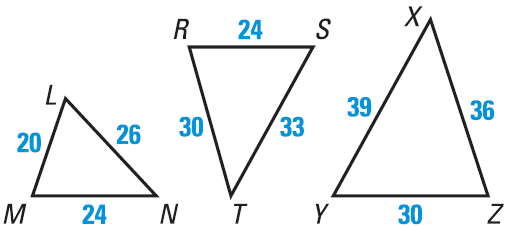
measures

If the \_\_\_\_\_\_\_\_\_\_\_\_\_ of two \_\_\_\_\_\_\_ of a triangle are \_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the measures of two corresponding \_\_\_\_\_\_\_\_ of another triangle and the \_\_\_\_\_\_\_\_\_\_\_ angles are \_\_\_\_\_\_\_\_\_\_\_\_\_\_, then the triangles are \_\_\_\_\_\_\_\_\_\_\_\_.

similar

congruent

inlcuded

Which of the three triangles are similar?

Try and : This is not true.

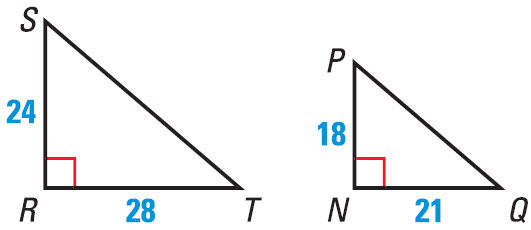
Try and : This is true.

Try and : This is not true.

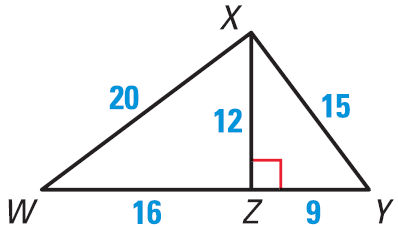
The shortest side of a triangle similar to ΔRST is 12 units long. Find the other side lengths of the triangle.

🡪 24x = 360 🡪 x = 15

🡪 24y = 396 🡪 y = 16.5

Explain how to show that the indicated triangles are similar.

SAS Similarity



SSS Similarity

Assignment: 391 #4-24 even, 25, 26, 30, 32, 36, 38, 41-44 all = 21

Extra Credit: 395 #2, 6 = +2