

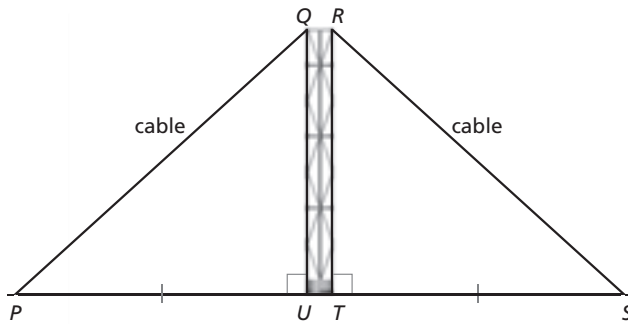
4ACE Exercise 9

Investigation 4

Kaleidoscopes, Hubcaps, and Mirrors

9. In the diagram below, 2 cables extend in opposite directions from the top of a tower to the ground.

Use what you know about **congruent triangles** to determine whether the two cables are the same length.



- a. How can you tell if two triangles (triangle PQU and triangle SRT) are **congruent**?

- b. Are there any angles and sides of triangle PQU that are **congruent** to triangle SRT ?

- c. Are triangles PQU and SRT **congruent**? Explain how you know.

- d. Is line PQ the same **length** as line SR ? Explain how you know.