

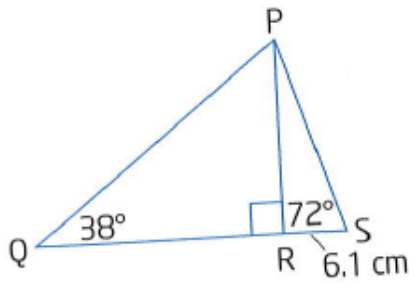
# Solving Problems with Right Triangles

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Work through each of the examples below. Hints are provided. The full solutions are in your textbook for you to either check your final answer or to provide a hint if you are stuck.

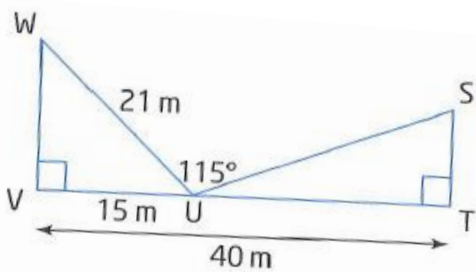
## Example 1

Determine the length of side PQ in the diagram below.



## Example 2

Determine the length of side ST in the diagram below.



**Example 3**

A security camera is mounted 8m above the ground on the outside of a building. Two vehicles are parked directly in front of the camera. Police determine that the angles of depression from the camera to each vehicle are  $23^\circ$  and  $58^\circ$ . How far apart were the vehicles?