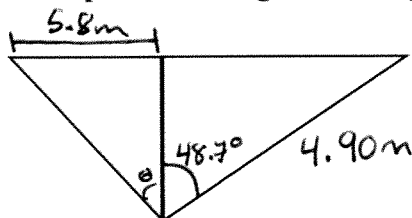


2.3: Problem Solving with 2 Right Triangle

In many situations it is necessary to solve one triangle, and in turn use some of that information to solve a second triangle.

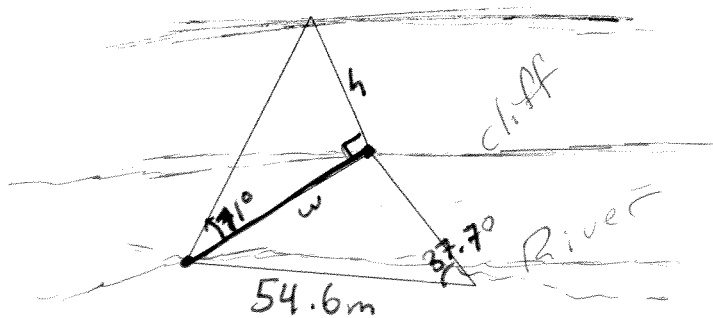
Example: Find length l and angle θ in the following.



Measuring Inaccessible Objects

Solving a system of 2 triangles can be used to determine a measurement that cannot be directly measured.

Example: Determine the cliff height.



First: Find the distance across the river

Second: Find the height of the cliff using the second triangle

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Example: Police Investigation. A security camera is located 8m above the ground on the front wall of a building. Investigators determined that the angles of depression to two vehicles parked directly in line with the camera were 23° and 58° . How far apart were the vehicles?

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Example: Find xy to one decimal place.

