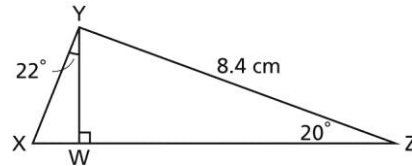


Lesson 2.7 Check Your Understanding

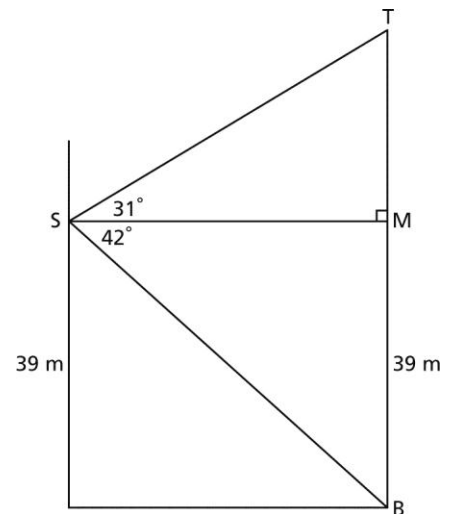
Math 10C – Topic 2.7 – Solving Problems with More than One Triangle

Sometimes we need to solve one triangle before we can find a solution to another triangle problem.

Example 1. Calculate the length of XY to the nearest tenth of a centimetre.



Example 2. A surveyor stands at a window on the 9th floor of an office tower. He uses a clinometer to measure the angles of elevation and depression of the top and the base of a taller building. The surveyor sketches this plan of his measurements. Determine the height of the taller building to the nearest tenth of a metre.



Lesson 2.7 Check Your Understanding

Example 3. A communications tower is 35 m tall. From a point due south of the tower, Tannis measures the angle of elevation of the top of the tower as 70° . Her brother Leif, who is due west of the tower, measures the angle of elevation of the top of the tower as 50° . How far apart are the students to the nearest metre?

Hint:

Sketch and label a diagram.