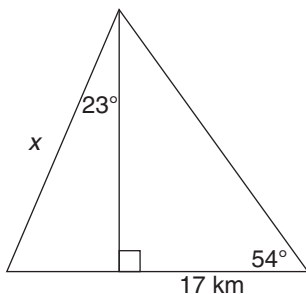




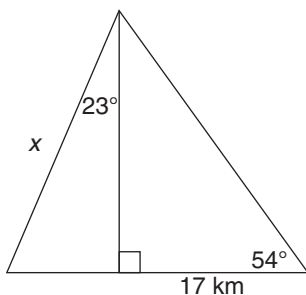
## Check Up

- Describe steps you could follow to determine the value of  $x$  in the diagram. You will complete this solution as part of your *Explore Your Understanding Assignment*.



Compare your answer.

- Describe steps you could follow to determine the value of  $x$  in the diagram. You will complete this solution as part of your *Explore Your Understanding Assignment*.



Strategies may vary, a sample is shown.

- Use the  $54^\circ$  angle, the 17 km side length, and the tangent ratio to determine the length common to the two right triangles (the height).
- Use the newly determined length, the  $23^\circ$  angle, and the cosine ratio to determine  $x$ .

The following problem requires multiple triangles to solve. As before, draw an appropriate diagram and add any calculated values to the diagram as you go.

## Multimedia



A video demonstration of the solution for *Example 2* has been provided.