

### 1.9 Solve Problems with Trigonometry

1. To measure the height, $h$, of an inaccessible cliff, a surveyor records the data shown. Find the height of the cliff, to the nearest metre.

2. Two hotels are located on the same side of a river, 400 m apart. There is a ferry dock on the other side of the river, as shown. How wide is the river?

3. The swimming portion of a triathlon course is shown below. Find the distance they have to swim in total.

4. Alex is making a triangular garden with side lengths $12 \mathrm{~m}, 7 \mathrm{~m}$ and 8 m . Find the measure of the largest angle between the sides.

## Practice!

## Set 1: p. 427\#1,2,3a,4,7 <br> Set 2: p. 427\#1,3a,6,7,10,13

