

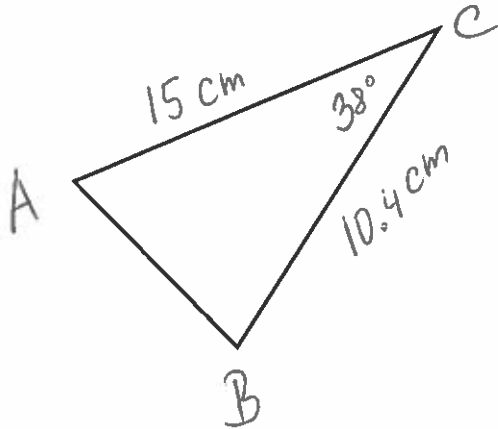
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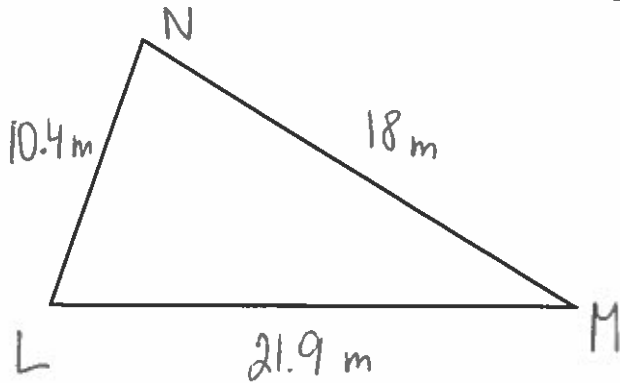
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Please note that none of the diagrams are to scale.

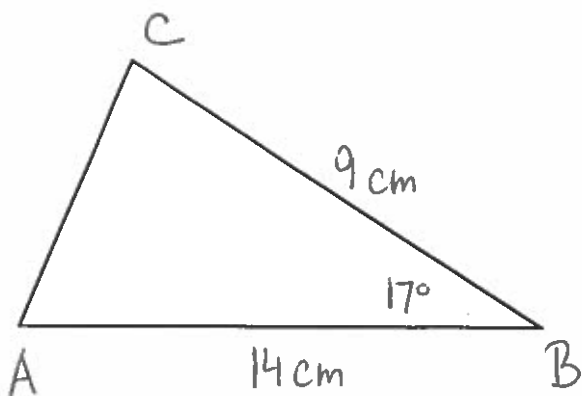
- [4] 1. Determine the measure of the unknown side length.



- [4] 2. Determine the measure of the remaining interior angles.



[6] 3. Determine the perimeter and the area of the given triangle.



[4] 4. For a triangle with lengths 14mm, 16 mm, and 17mm, find the measure of the smallest angle.

- [6] 5. Ellis sails at a speed of 16 km/h in the direction  $N83^\circ W$ . Helmut sails at a speed of 14 km/h in the direction of  $S40^\circ W$ . How far apart were Elli and Helmut after two hours, to the nearest tenth of a kilometer?

**Bonus:** SpongeBob decided to take a hike in a park. He has a walkie-talkie so that he can keep in touch with his friends at the camp. The walkie-talkie has a range of 6.0 km. SpongeBob hikes 5 km in  $S60^\circ E$  direction. He then hikes 2 km in a  $N30^\circ E$  direction. How far is SpongeBob from the camp? Can he still communicate with this friends at the camp?