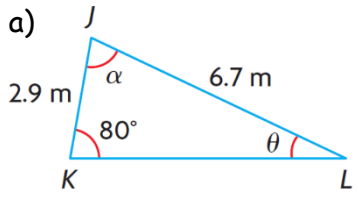
MPM 2D1

Name: _____

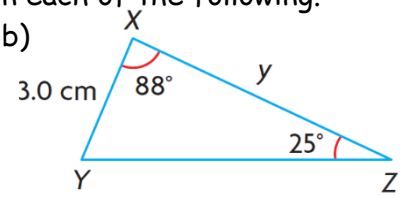
Sine Law

1. Determine the unknown value(s) in each of the following.

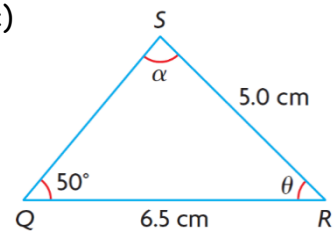
a)



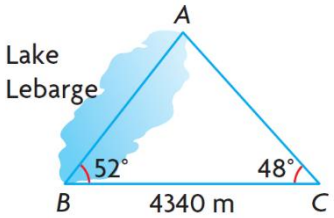
b)



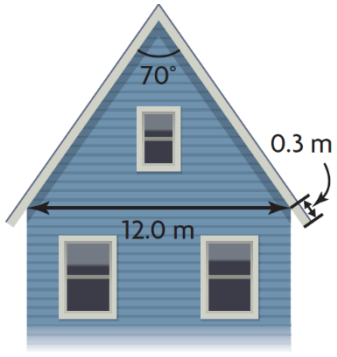
c)



2. Scott is a naturalist. He is studying the effects of acid rain on fish populations in different lakes. As part of his research, he needs to know the length of Lake Lebarge. Scott makes the measurements shown. How long is Lake Lebarge?



3. An architect designed a house that is 12.0 m wide. The rafters that hold up the roof are equal in length and meet at an angle of 70°, as shown at the left. The rafters extend 0.3 m beyond the supporting wall. How long are the rafters?



4. A telephone pole is supported by two wires on opposite sides. At the top of the pole, the wires form an angle of 60°. On the ground, the ends of the wires are 15.0 m apart. One wire makes an angle of 45° with the ground. How long are the wires, and how tall is the pole?

5. Jim says that the sine law cannot be used to determine the length of side c in ΔABC as shown. Do you agree or disagree? Explain.