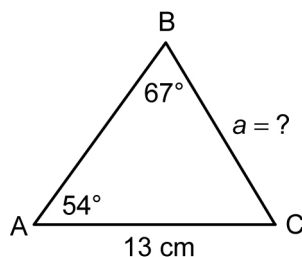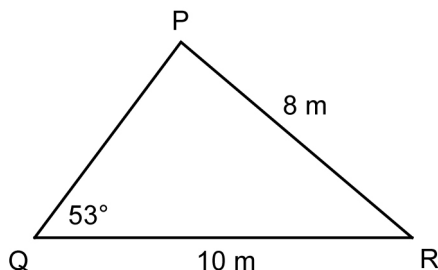# Chapter 8 Review

8.1 The Sine Law

1. Find *a*, to the nearest tenth of a centimetre.
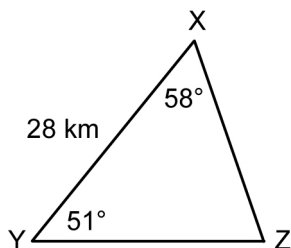

2. Find the measure of ∠P, to the nearest degree.

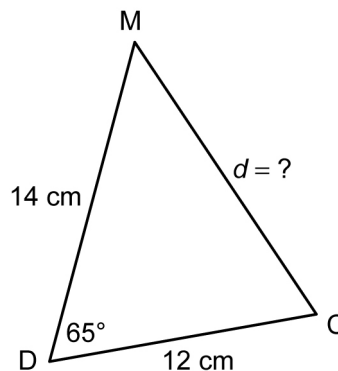3. Solve each triangle. Round answers to the nearest tenth of a unit.
   a)

   b) In △DEF, ∠D = 73°, ∠E = 64°, and *d* = 9.0 m.

4. Three trees are in the yard at the back of Aly's house. The oak tree is 10 m from the ash tree and 15 m from the maple tree. The line from the oak tree to the ash tree and the line from the ash tree to the maple tree form an angle of 78°.
   a) Draw a diagram and label the known information.
   b) How far apart are the ash tree and the maple tree? Round your answer to the nearest tenth of a metre.
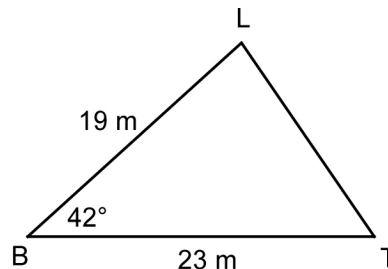
8.2 The Cosine Law

5. Find *d*, to the nearest tenth of a centimetre.

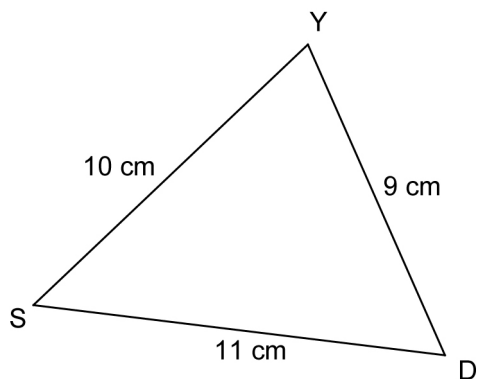6. Solve each triangle. Round answers to the nearest tenth of a unit.
   a)

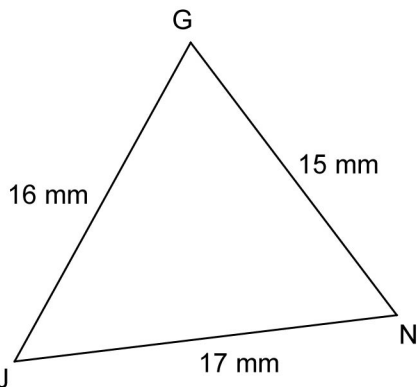   **b)** In acute △RGM, ∠M = 78°, *r* = 10 cm, and *g* = 13 cm.

8.3 Find Angles Using the Cosine Law

7. Find the measure of ∠S, to the nearest degree.

8. Solve each triangle. Round answers to the nearest tenth of a degree.

a)

b) In acute △BXR, $b = 5.2$ cm, $x = 6.3$ cm, and $r = 7.1$ cm.

8.4 Solve Problems Using Trigonometry

9. Cara is standing in the centre of a field. From where she is standing, she can see four posts at different positions on the field, as shown in the diagram. How far apart are posts A and B, to the nearest tenth of a metre?