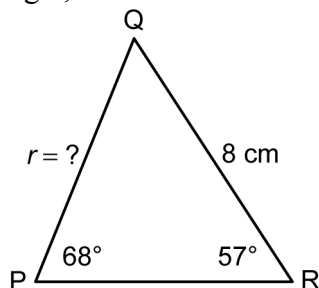# Section 8.1 Practice Master
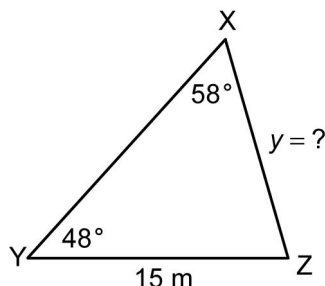
1. Find the length of the indicated side in each triangle, to the nearest tenth of a unit.
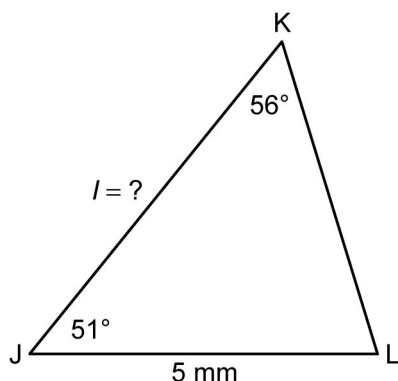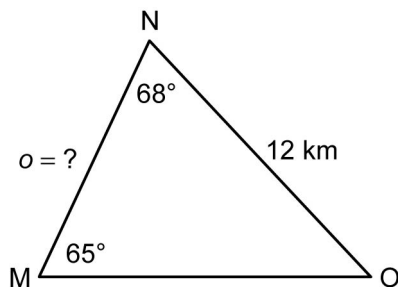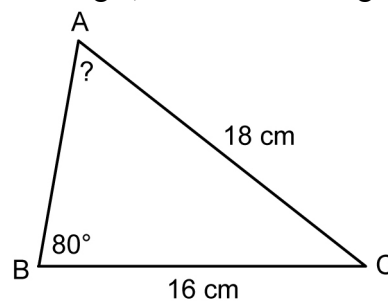
a)

b)

c)

d)

2. Draw a diagram and label the given information. Then, find the measure of the indicated side in each triangle, to the nearest tenth of a unit.

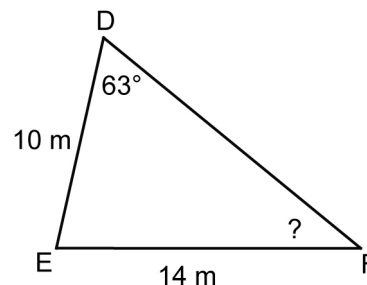**a)** In acute $\triangle$ABC, $\angle A = 72°$, $\angle B = 68°$, and $a = 12$ cm. Find side b.

b) In acute $\triangle$DEF, $\angle D = 52°$, $\angle F = 71°$, and $e = 8.0$ m. Find side d.

3. Find the measure of the indicated angle in each triangle, to the nearest degree.

a)

b)

4. Draw a diagram and label the given information. Then, find the measure of the indicated angle in each triangle, to the nearest degree.

a) In acute $\triangle$PQR, $\angle P = 64°$, $p = 5.7$ cm, and $r = 4.1$ cm. Find $\angle R$.

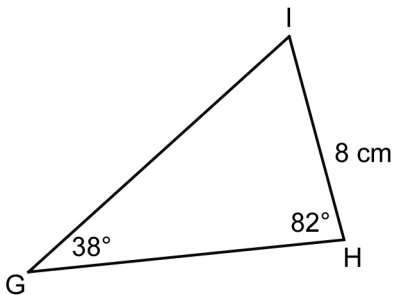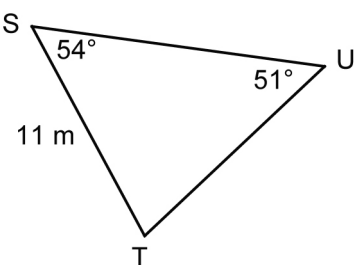**b)** In acute $\triangle$STU, $\angle S = 57°$, $s = 12$ m, and $u = 9$ m. Find $\angle U$.

5. Solve each triangle. Round answers to the nearest unit.
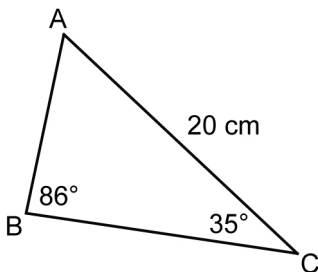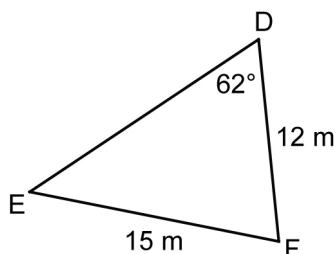
a)

b)

6. Solve each triangle. Round answers to the nearest unit.

a)

b)

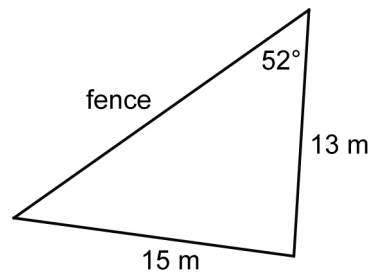**7.** Draw a diagram and label the given information. Then, solve each triangle. Round answers to the nearest unit.
   a) In △DMC, ∠D = 55°, d = 21 cm, and m = 23 cm.
   b) In △KPR, ∠K = 63°, ∠P = 71°, and r = 13 m.

8. Use Technology Check your answers to question 7 using dynamic geometry software.

9. Angela is building a garden in the shape of a triangle, as shown. She would like to put a fence on one side of the garden.

   a) Find the angle formed by the fence and the side that is 15 m in length. Round your answer to the nearest degree.
   b) Find the length of the fence, to the nearest metre.