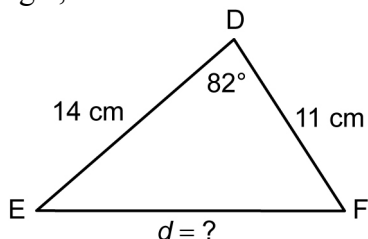# Section 8.2 Practice Master
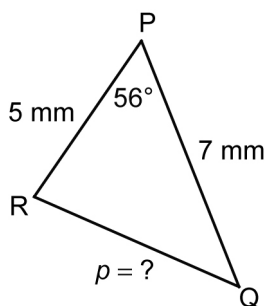
1. Find the length of the indicated side in each triangle, to the nearest tenth of a unit.
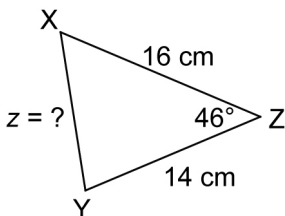
a)

82° at D, 14 cm (DE), 11 cm (DF), E, F, $d = ?$

b)

P, 5 mm, 56°, 7 mm, R, $p = ?$, Q

c)

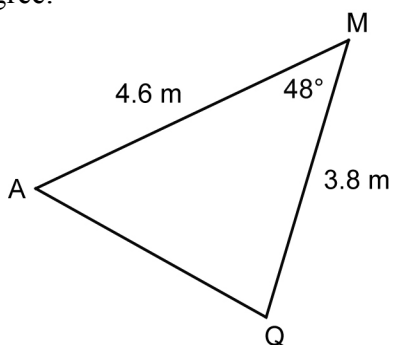X, 16 cm, $z = ?$, 46°, Z, 14 cm, Y

2. Sketch each triangle and use the given information to find the missing side length, to the nearest tenth of a unit.
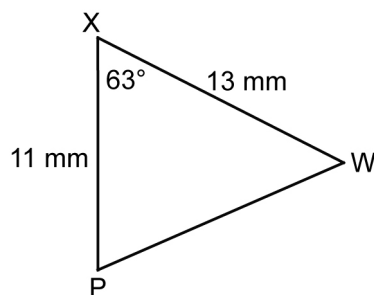**a)** In acute $\triangle ABC$, $a = 6.2$ cm, $b = 4.7$ cm, and $\angle C = 56°$.
b) In acute $\triangle GHI$, $g = 13$ m, $h = 15$ m, and $\angle I = 44°$.

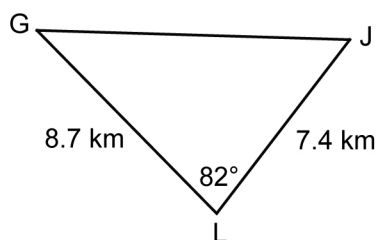**3.** Solve each triangle. Round side lengths to the nearest tenth of a unit and angles to the nearest degree.

a)

4.6 m, 48° at M, 3.8 m, A, Q

b)

X, 63°, 13 mm, 11 mm, W, P

c)

G, J, 8.7 km, 7.4 km, 82° at L

4. Sketch each triangle and label the given information. Then, solve the triangle. Round side lengths to the nearest tenth of a unit and angles to the nearest degree.
a) In $\triangle MCB$, $\angle M = 61°$, $c = 18$ cm, and $b = 21$ cm.
b) In $\triangle HBQ$, $\angle H = 71°$, $b = 14$ m, and $q = 16$ m.

5. **Use Technology** Check your answers to question 4 using dynamic geometry software.

6. Find the length of the bridge, to the nearest metre.

35 m, 67°, bridge, 63 m