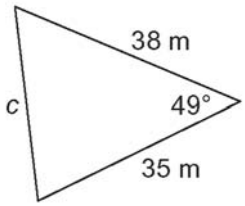
Name: _____ Date: _____

BLM 2–8

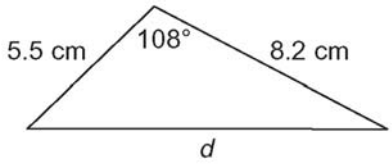
Section 2.4 Cosine Law

1. Determine the length of each indicated side to the nearest unit.

a)



b)



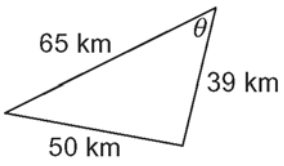
2. In △ABC, $a = 21$ mm, ∠B = 31°, and $c = 27$ mm.

a) Draw and label a diagram.

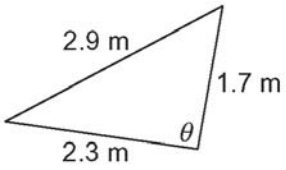
b) Determine the length of side b to the nearest millimetre.

3. Determine the measure of each indicated angle to the nearest degree.

a)



b)



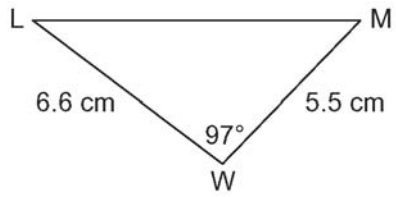
4. In △DEF, $d = 12.2$ ft, $e = 9.0$ ft, and $f = 15.5$ ft.

a) Draw and label a diagram.

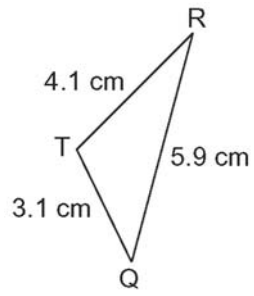
b) Determine the measure of ∠F to the nearest degree.

5. Solve each triangle. Round all angle measures to the nearest degree and all side lengths to one decimal place.

a)



b)



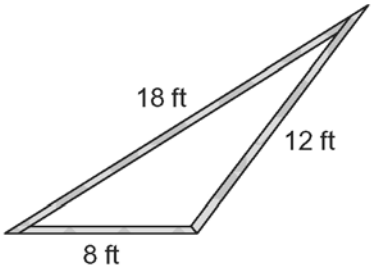
6. **a)** Draw and label a diagram of △SUV with ∠U = 125°, $s = 31$ m, and $v = 24$ m.

b) Solve △SUV. Round all measures to the nearest unit.

7. **a)** Draw and label a diagram of △TPK with $t = 6.7$ km, $p = 8.6$ km, and $k = 11.9$ km.

b) Solve △TPK. Round all measures to the nearest unit.

8. A triangular frame is to be made from three pieces of wood with lengths 8 ft, 12 ft, and 18 ft.



Determine the angle measures in the triangle formed by the three pieces of wood.

978-0-07-013108-8