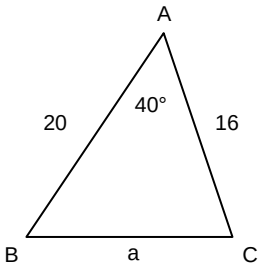
The Cosine Law

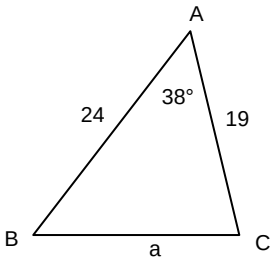
Date:

1. Determine the indicated length. *Round to 1 decimal place.*

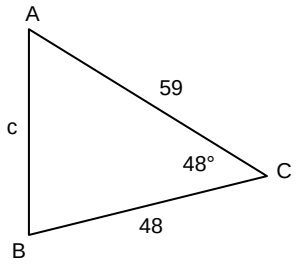
a)



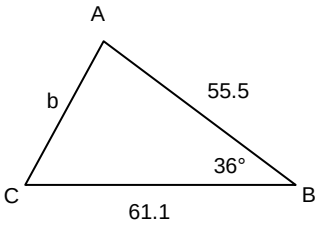
b)



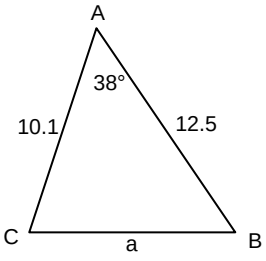
c)



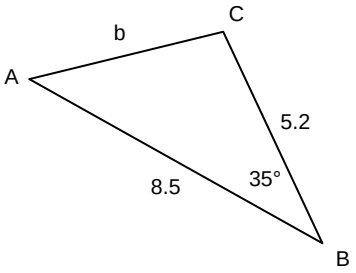
d)



e)

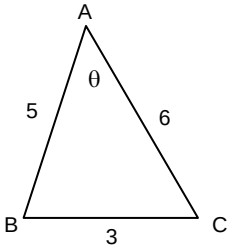


f)

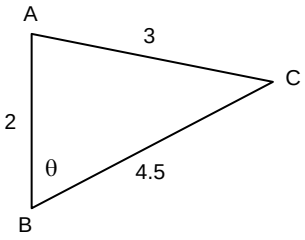


2. Determine the indicated angle in each of the acute triangles below. *Round to 1 decimal place.*

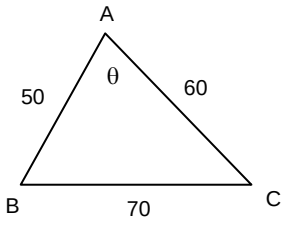
a)



b)



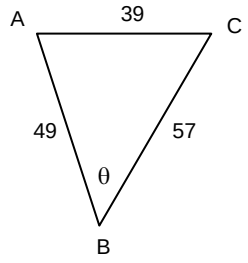
c)



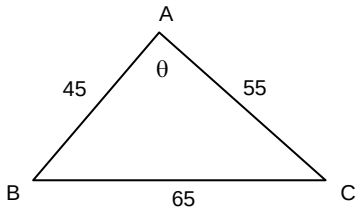
The Cosine Law

Date:

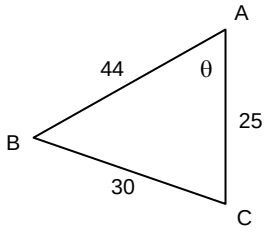
d)



e)



f)



3. In your notebooks, draw a diagram and then solve ΔABC . *Round to 1 decimal place.*

   a) a = 11.7 ; $\angle$B = 49° ; c = 10.8

   b) a = 10 ; b = 11.7 ; c = 8.25

   c) a = 11.3 ; b = 7.25 ; c = 12.6

   d) a = 15.7 ; $\angle$B = 68° ; c = 18.5

4. Find the areas of each of the triangles in Qu. #1 on the previous page. *Round to 1 decimal place.*

Answers:

1. a) 12.9 b) 14.8 c) 44.7 d) 36.4 e) 7.7 f) 5.2
2. a) 29.9° b) 32.1° c) 78.5° d) 42.3° e) 80.4° f) 41.0°
3. a) 9.4 ; 70.5° ; 60.5° b) 43.8° ; 57.1° ; 79.1° c) 34.8° ; 62.8° ; 82.5° d) 19.3 ; 49.1° ; 62.9°
4. a) 102.8 b) 140.4 c) 1052.3 d) 996.6 e) 38.9 f) 12.7