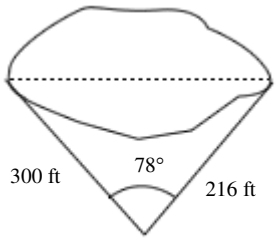
CN PreCalculus (Mth 112) Chapter 7 Test - Law of Sines and Cosines **PRACTICE**

Name_____ **Date**_____ **Period**_____ **Score**_____

Answers must be given exactly or round to nearest tenth.

		Answers
1.	**Given a triangle with A = 39°, B = 106°, and c = 78, solve the triangle.**	**1.** **m∠C**_____ **b =** _____ **c =** _____
2.	**Given a triangle with A = 35°, a = 15, and b = 23,**	**2.**
	a) find $m\angle B_1$.	**a)**_____
	b) find $m\angle B_2$	**b)**_____
3.	**Given a triangle with a = 117, b = 230, and c = 185, find $m\angle B$.**	**3.** _____
4.	**A boat leaves a port and sails 16 miles at a bearing of S 20° E. Another boat leaves the same port and sails 12 miles at a bearing of S 60° W. How far apart are the two boats at this point? (Hint: draw the picture)**	**4.** _____

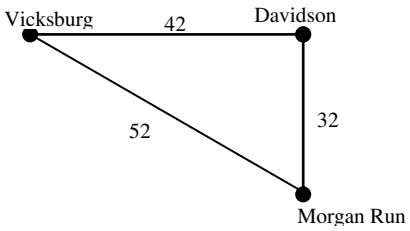
5. **A trigonometry class wants to determine the length of a pond near the school. From point A, they measure the distance to each end of the pond and the angle between the two sides. What is the approximate length of the pond?**



A

5. _____

6. **On a map the town of Morgan Run is due south of Davidson and Southeast of Vicksburg. The distances from Morgan Run to Davidson and Vicksburg are 32 and 52 miles, respectively. The distance between Davidson and Vicksburg is 42 miles. If a plane leaves Morgan Run to fly to Vicksburg, on what <u>bearing</u> should it travel? (NOTE: This is not a right triangle.)**



6. _____

7. **Given a triangle with a = 72 ft, b = 51 ft, and A = 27°, find the area.**

7. _____

8. **Find the area of the triangle with side lengths: a = 21 cm, b = 22 cm, and c = 23 cm.**

8. _____