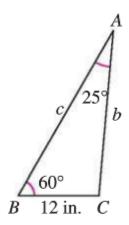
## Pre-Calculus: Lesson 6.1: Law of Sines Day 1: p. 410 #7-21 odd Day2: p. 410 #31-39 odd

Please complete the assignment using the "tri-fold" method (You may use <u>www.calcchat.com</u> to check your work):

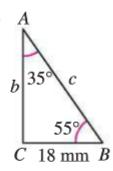
## Procedures and Problem Solving

Using the Law of Sines In Exercises 7–26, use the Law of Sines to solve the triangle.

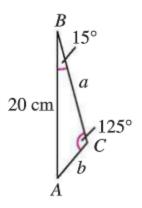
7.



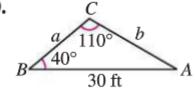
8.



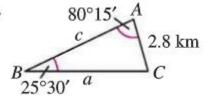
0



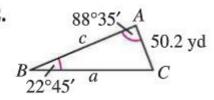
10.



11.



12.



**13.** 
$$A = 36^{\circ}$$
,  $a = 8$ ,  $b = 5$ 

**14.** 
$$A = 76^{\circ}$$
,  $a = 34$ ,  $b = 21$ 

**15.** 
$$A = 102.4^{\circ}$$
,  $C = 16.7^{\circ}$ ,  $a = 21.6$ 

**16.** 
$$A = 24.3^{\circ}$$
,  $C = 54.6^{\circ}$ ,  $c = 2.68$ 

**17.** 
$$A = 110^{\circ} 15'$$
,  $a = 48$ ,  $b = 16$ 

**18.** 
$$B = 2^{\circ} 45'$$
,  $b = 6.2$ ,  $c = 5.8$ 

**19.** 
$$A = 110^{\circ}$$
,  $a = 125$ ,  $b = 100$ 

**20.** 
$$A = 55^{\circ}$$
,  $B = 42^{\circ}$ ,  $c = \frac{3}{4}$ 

**21.** 
$$B = 28^{\circ}$$
,  $C = 104^{\circ}$ ,  $a = 3\frac{5}{8}$ 

Using the Law of Sines In Exercises 31–34, find the value(s) of b such that the triangle has (a) one solution, (b) two solutions, and (c) no solution.

**31.** 
$$A = 36^{\circ}$$
.  $a = 5$ 

**32.** 
$$A = 60^{\circ}$$
,  $a = 10$ 

**33.** 
$$A = 10^{\circ}$$
,  $a = 10.8$ 

**34.** 
$$A = 88^{\circ}$$
,  $a = 315.6$ 

Finding the Area of a Triangle In Exercises 35–40, find the area of the triangle having the indicated angle and sides.

**35.** 
$$C = 110^{\circ}$$
,  $a = 6$ ,  $b = 10$ 

**36.** 
$$B = 130^{\circ}$$
,  $a = 92$ ,  $c = 30$ 

**37.** 
$$A = 38^{\circ} 45'$$
,  $b = 67$ ,  $c = 85$ 

**38.** 
$$A = 5^{\circ} 15'$$
,  $b = 4.5$ ,  $c = 22$ 

**39.** 
$$B = 75^{\circ} 15'$$
,  $a = 103$ ,  $c = 58$ 

**40.** 
$$C = 85^{\circ} 45'$$
,  $a = 16$ ,  $b = 20$