Unit 9 Advanced Algebra- Assignment #12

I can use the law of Sines

For each problem, draw a triangle, label it, and use the law of sines

The Law of Sines is as follows: $\frac{SinA}{a} = \frac{SinB}{b} = \frac{SinC}{c}$ **Use capital letters for your angles and little letters across from the angle for the side. Number 1 is done as an example:**

1) A = 40, B= 60 and a = 12   find b

2) If A = 80 B= 30 and b = 14 find a

3) If B= 120, C = 20 and c = 28 find b

4) If B= 110 C = 40 and b = 18 find c

5) If A = 10 C= 100 and a = 24 find c

6) If A = 5 C = 125 and c = 510 find a

7) If A = 50 B = 60 and a = 36 Find C and c

8) If B= 40 C= 70 and c= 42 Find A and a

9) If A = 52 B = 48 and c = 14 Find C and a

10) If A= 33 C = 82 and b = 18 Find B and c

Over

I can apply the law of Sines

11) A man standing near a radio station antenna observes that the angle of elevation to the top of the antenna is 64 degrees. He then walks 100 feet further away and observes that the angle of elevation to the top of the antenna is 46 degrees. Find the height of the antenna to the nearest foot.
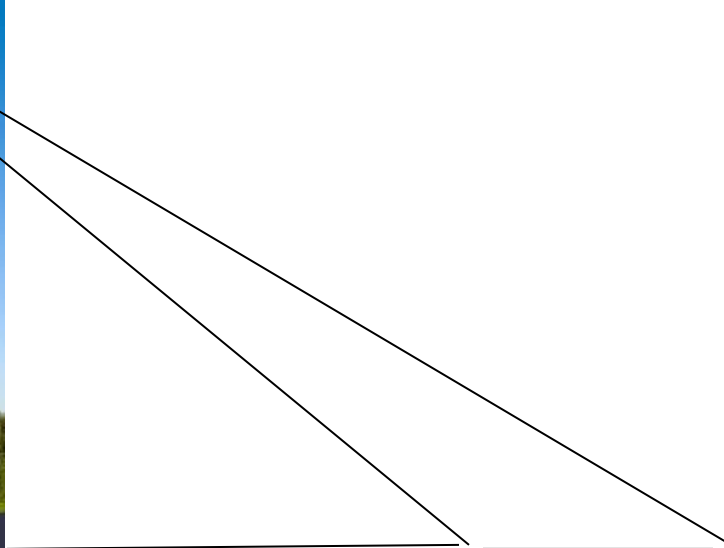
12) An observer is near a river and wants to calculate the distance across the river. He measures the angle between his observations of 2 points on the shore, one on his side and on the other side to be 28°. The distance between him and the point on his side of the river can be measured and is 300 feet. The angle formed by him, the point on his side of the river and the point directly on the opposite side of the river is 128. What is the distance across the river between the 2 points?