



Solve the following triangles using the law of sines:  $\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$

1.  $A = 26^\circ$ ,  $c = 44$ ,  $B = 35^\circ$ .

2.  $A = 16.2^\circ$ ,  $c = 100$ ,  $a = 81$ .

3. An 800 foot ship is anchored securely a short distance from the shore where a power outlet is available and is parallel to the shore. From the bow of the ship, the angle between the ship and the power outlet is  $67^\circ$ , while, viewed from the stern of the ship, the angle between the ship and the power outlet is  $87^\circ$ . How far is the stern of the ship from the power outlet?

