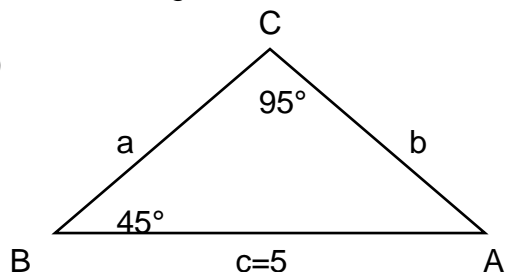


Name: _____

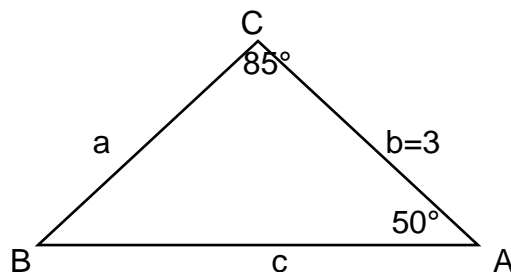
Law of Sin

Solve the triangle:

1.)



2.)



3.) Solve the triangle if $A = 40^\circ$, $B = 20^\circ$, $a = 2$

Two side and an angle are given. Determine whether the information results in one triangle, two triangle are no triangle. Solve any triangle that results.

4) $a = 3$, $b = 2$ and $A = 50^\circ$

5.) $b = 5$, $c = 3$ and $B = 100^\circ$

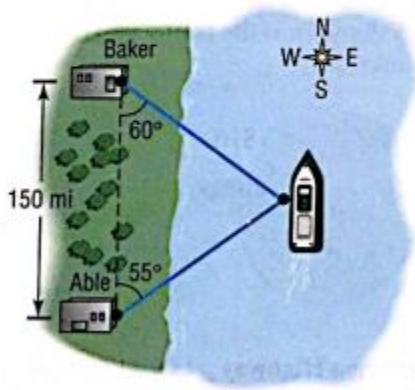
6.) $a = 4$, $b = 5$ and $A = 60^\circ$

7.) $b = 4$, $c = 6$ and $B = 20^\circ$

8.) $a = 2$, $c = 1$ and $C = 100^\circ$

9.) $a = 2$, $c = 1$ and $C = 25^\circ$

- 10.) **Rescue at Sea** Coast Guard Station Able is located 150 miles due south of Station Baker. A ship at sea sends an SOS call that is received by each station. The call to Station Able indicates that the ship is located $N55^\circ E$; the call to Station Baker indicates that the ship is located $S60^\circ E$.
- (a) How far is each station from the ship?
- (b) If a helicopter capable of flying 200 miles per hour is dispatched from the nearest station to the ship, how long will it take to reach the ship?



- 11.) **Finding the Length of a Ski Lift** Consult the figure. To find the length of the span of a proposed ski lift from A to B , a surveyor measures the angle DAB to be 25° and then walks off a distance of 1000 feet to C and measures the angle ACB to be 15° . What is the distance from A to B ?

