

8-5

Practice

Form G

Law of Sines

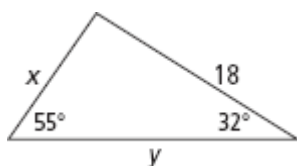
Use the information given to solve.

1. In $\triangle ABC$, $m\angle A = 40$, $m\angle C = 70$, and $BC = 8.5$. To the nearest tenth, what is AB ?

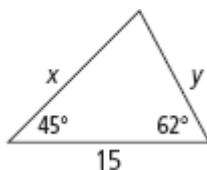
6. In $\triangle DEF$, $m\angle D = 35$, $DE = 6.3$, and $EF = 7.5$. To the nearest tenth, what is $m\angle F$?

Use the Law of Sines to find the values of x and y . Round to the nearest tenth.

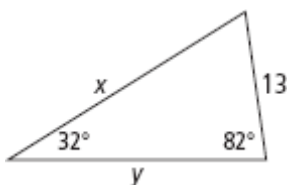
7.



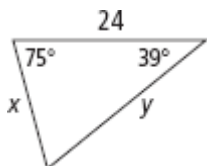
9.



11.



13.



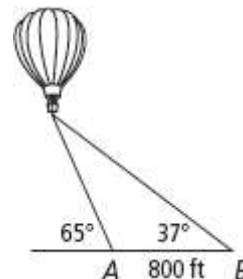
8-5

Practice (continued)

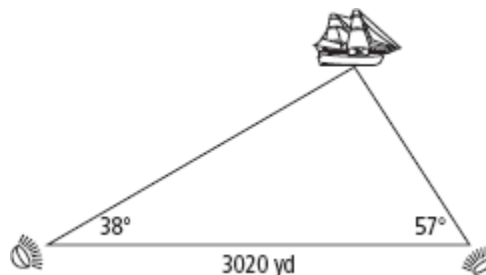
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15. A hot-air balloon is observed from two points, A and B , on the ground 800 feet apart as shown in the diagram. The angle of elevation of the balloon is 65° from point A and 37° from point B . What is the distance from point A to the balloon? Round your answer to the nearest foot.



16. Two searchlights on the shore of a lake are located 3020 yards apart as shown in the diagram. A ship in distress is spotted from each searchlight. The beam from the first searchlight makes an angle of 38° with the shoreline. The beam from the second light makes an angle of 57° with the shoreline. What is the ship's distance from each searchlight? Round your answers to the nearest yard.



17. An airplane is flying between two airports that are 35 miles apart. The radar in one airport registers a 27° angle between the horizontal and the airplane. The radar system in the other airport registers a 69° angle between the horizontal and the airplane. How far is the airplane from each airport, to the nearest tenth of a mile?



In $\triangle ABC$, $m\angle A = 25$ and $m\angle B = 50$. Find each value to the nearest tenth.

18. If $BC = 6.2$, what is AC ?

20. If $AB = 53.7$, what is AC ?