

Day 16 – Law of Sines Homework

p. 525 #6 – 14 evens

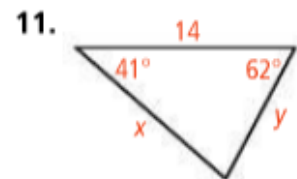
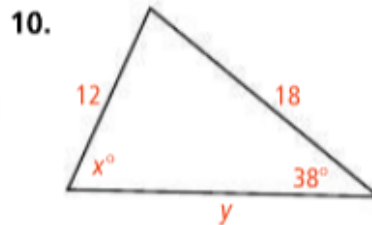
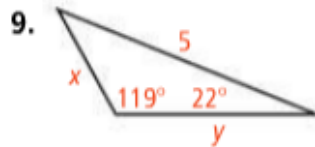
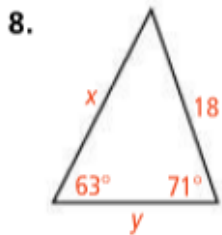
Use the information given to solve.

◀ See Problems 1 and 2.

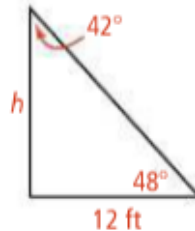
6. In  $\triangle ABC$ ,  $m\angle A = 70$ ,  $m\angle C = 62$ , and  $BC = 7.3$ . To the nearest tenth, what is  $AB$ ?

7. In  $\triangle XYZ$ ,  $m\angle Y = 80$ ,  $XY = 14$ , and  $XZ = 17$ . To the nearest tenth, what is  $m\angle Z$ ?

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



12. The main sail of a sailboat has the dimensions shown in the figure at the right. To the nearest tenth of a foot, what is the height of the main sail?



◀ See Problem 3.

13. A portion of a city map is shown in the figure at the right. If you walk along Maple Street between 2nd Street and Elm Grove Lane, how far do you walk? Round your answer to the nearest tenth of a yard.



14. **Navigation** The Bermuda Triangle is a historically famous region of the Atlantic Ocean. The vertices of the triangle are formed by Miami, FL; Bermuda; and San Juan, Puerto Rico. The approximate dimensions of the Bermuda Triangle are shown in the figure at the right. Explain how you would find the distance from Bermuda to Miami. What is this distance to the nearest mile?

