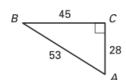
Practice 7.5 Practice

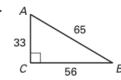
For use with the lesson "Apply the Tangent Ratio"

Find an A and an B. Write each answer as a decimal rounded to four decimal places.

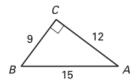
1.



2

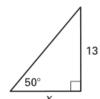


3.



Find the value of x to the nearest tenth.

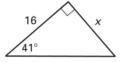
4.



5.

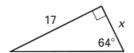


6

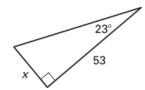


Use a tangent ratio to find the value of x. Round to the nearest tenth.

7.

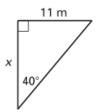


8.



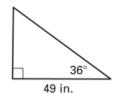
Find the area of the triangle.

9



Find the perimeter of the triangle.

10.



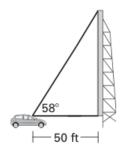
11. Model Rockets To calculate the height h reached by a model rocket, you move 100 feet from the launch point and record the angle of elevation θ to the rocket at its highest point. The values of θ for three flights are given below. Find the rocket's height to the nearest foot for the given θ in each flight.

$$\mathbf{a.} \ \theta = 77^{\circ}$$

b.
$$\theta = 81^{\circ}$$

c.
$$\theta = 83^{\circ}$$

12. Drive-in Movie You are 50 feet from the screen at a drive-in movie. Your eye is on a horizontal line with the bottom of the screen and the angle of elevation to the top of the screen is 58°. How tall is the screen?



100 ft

13. Skyscraper You are a block away from a skyscraper that is 780 feet tall. Your friend is between the skyscraper and yourself. The angle of elevation from your position to the top of the skyscraper is 42°. The angle of elevation from your friend's position to the top of the skyscraper is 71°. To the nearest foot, how far are you from your friend?

