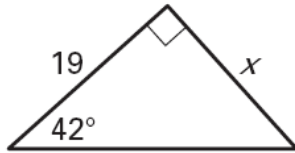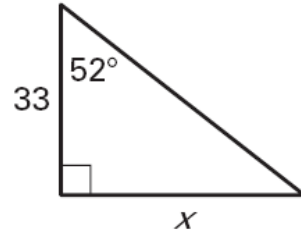Name_____   Date_____

Practice C
For use with pages 466–472

Find the value of *x* to the nearest tenth.
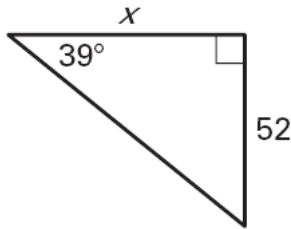
1.

19 / 42° / x (right angle at top)

2.

52°
33
x

3.

x
39°
52

4.

73
63°
x

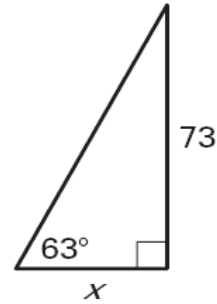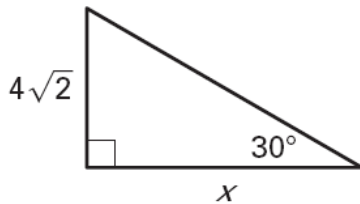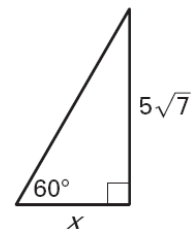**Find the value of *x* using the definition of tangent. Then find the value of *x* using the 45°-45°-90° Triangle Theorem or the 30°-60°-90° Triangle Theorem. *Compare* the results.**
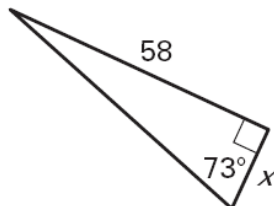
5.

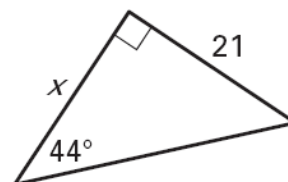$4\sqrt{2}$
30°
x

6.

$5\sqrt{7}$
60°
x

Use a tangent ratio to find the value of *x*. Round to the nearest tenth.
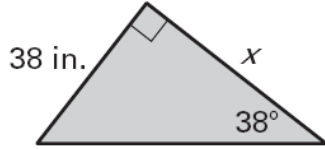
7.

58
73° x

8.

21
x
44°

Find the area of the triangle. Round to the nearest tenth.

9.

38 in.

x

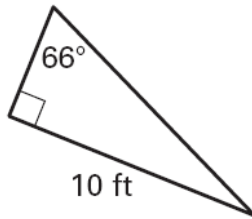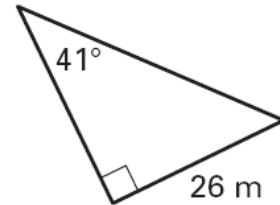38°

10.

24 ft

61°

x
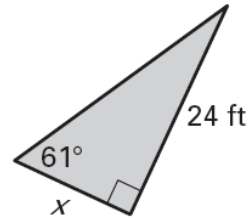
Find the perimeter of the triangle. Round to the nearest tenth.
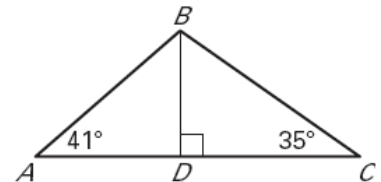
11.

66°

10 ft

12.

41°

26 m

13. **Perimeter** What is the perimeter of an equilateral triangle with an altitude of 15 inches?

14. In the diagram to the right, $AC = 42$. What is AD? Round your answer to the nearest tenth.

B

41°   35°

A   D   C

In Exercises 15-16, use the figure of the lighthouse.

15. At 2 P.M., the shadow of a lighthouse is 19 feet long and the angle of elevation is 75°. Find the height of the lighthouse.

16. At 4 P.M., the angle of elevation of the sun is 40°. Find the length of the shadow cast by the lighthouse

17. At 6 P.M., will the length of the shadow be longer or shorter than it was at 4 P.M.? *Explain.*

h

75°

19 ft