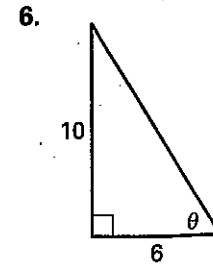
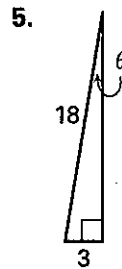
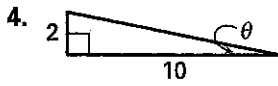
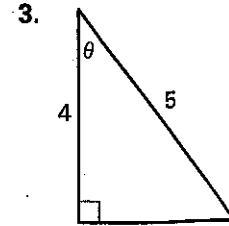
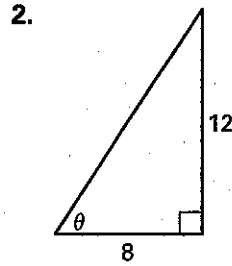
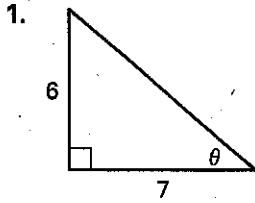


**Practice A**

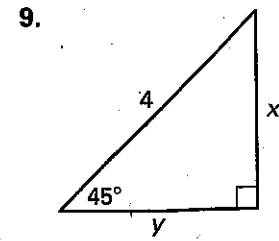
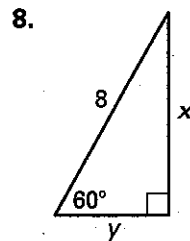
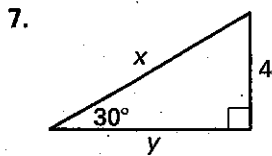
For use with pages 769–775

Lesson 13.1

Evaluate the six trigonometric functions of the angle  $\theta$ .



Find the missing side lengths  $x$  and  $y$ .



Use a calculator to evaluate the trigonometric function. Round the result to four decimal places.

10.  $\sin 15^\circ$

11.  $\cos 47^\circ$

12.  $\tan 65^\circ$

13.  $\csc 18^\circ$

14.  $\sec 25^\circ$

15.  $\cot 62^\circ$

16.  $\sin 80^\circ$

17.  $\cos 10^\circ$

Solve  $\triangle ABC$  using the diagram and the given measurements.

18.  $B = 12^\circ, a = 4$

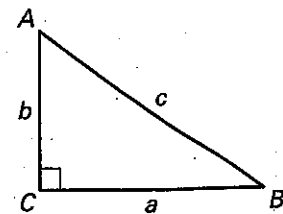
19.  $A = 74^\circ, c = 20$

20.  $A = 50^\circ, b = 8$

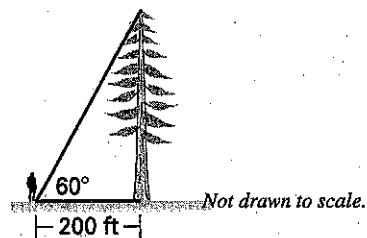
21.  $B = 38^\circ, c = 7$

22.  $A = 72^\circ, b = 18$

23.  $B = 22^\circ, a = 5$



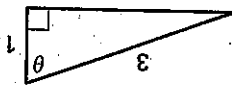
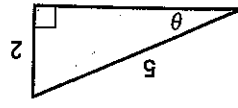
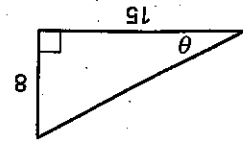
24. **Redwood Trees** You are standing 200 feet from the base of a redwood tree. You estimate the angle of elevation to the top of the tree is  $60^\circ$ . What is the approximate height of the tree?



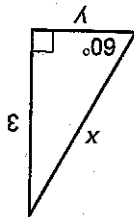
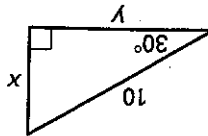
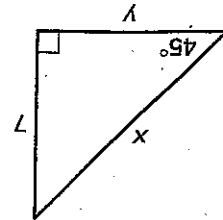
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Evaluate the six trigonometric functions of the angle  $\theta$ .



Find the missing side lengths  $x$  and  $y$ .

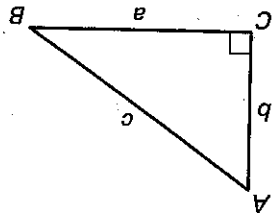


Use a calculator to evaluate the trigonometric function. Round the result to four decimal places.

- 7.  $\cos 27^\circ$
- 8.  $\tan 5^\circ$
- 9.  $\sin 48^\circ$
- 10.  $\cot 81^\circ$
- 11.  $\csc 23^\circ$
- 12.  $\sec 66^\circ$
- 13.  $\cot 13^\circ$
- 14.  $\sin 32^\circ$

Solve  $\triangle ABC$  using the diagram and the given measurements.

- 15.  $A = 46^\circ, b = 8$
- 16.  $B = 24^\circ, c = 13$
- 17.  $B = 18^\circ, c = 10$
- 18.  $A = 55^\circ, a = 20$
- 19.  $B = 70^\circ, a = 6$
- 20.  $A = 7^\circ, b = 18$



21. **Flagpole** You are standing 25 feet from the base of a flagpole. The angle of elevation to the top of the flagpole is  $30^\circ$ . What is the height of the flagpole to the nearest tenth?

22. **Mount Fuji** Mt. Fuji in Japan is approximately 12,400 feet high. Standing several miles away, you estimate the angle of elevation to the top of the mountain is  $30^\circ$ . Approximately how far way are you from the base of the mountain?