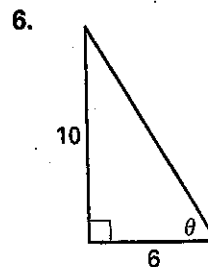
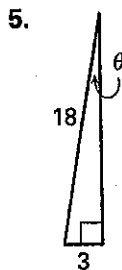
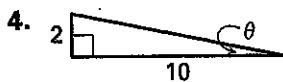
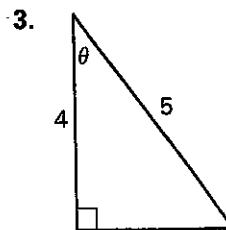
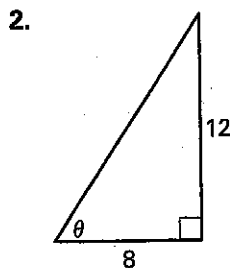
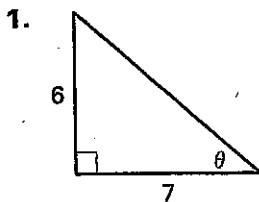


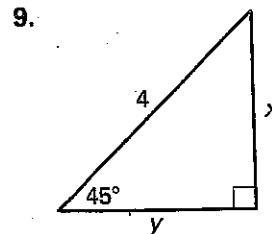
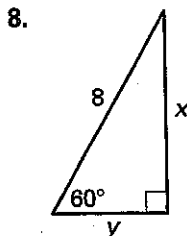
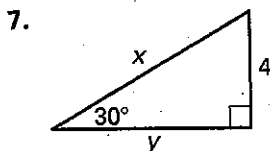
Practice A

For use with pages 769–775

Evaluate the six trigonometric functions of the angle θ .



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

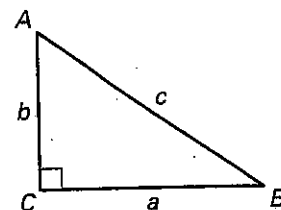
19. $A = 74^\circ, c = 20$

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

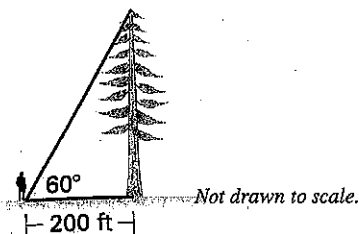
21. $B = 38^\circ, c = 7$

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

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



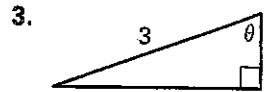
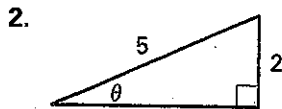
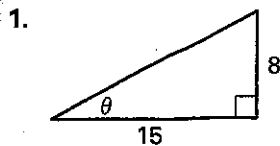
24. **Redwood Trees** You are standing 200 feet from the base of a redwood tree. You estimate the angle of elevation to the top of the tree is 60° . What is the approximate height of the tree?



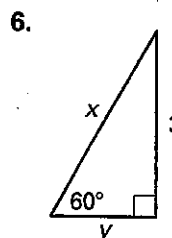
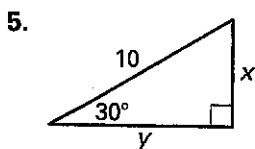
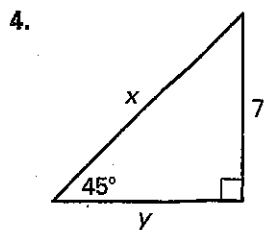
Practice B

For use with pages 769–775

Evaluate the six trigonometric functions of the angle θ .



Find the missing side lengths x and y .

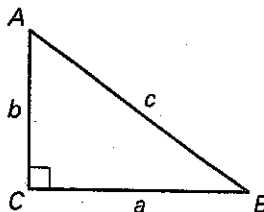


Use a calculator to evaluate the trigonometric function. Round the result to four decimal places.

- | | | | |
|---------------------|---------------------|---------------------|---------------------|
| 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° . 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° . Approximately how far away are you from the base of the mountain?