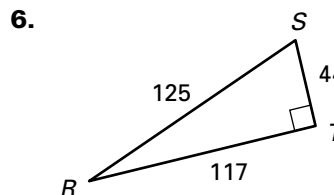
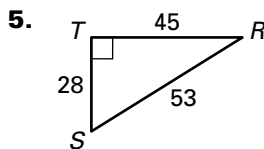
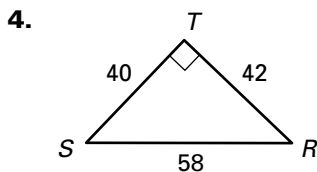
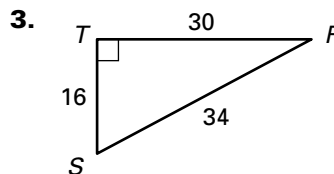
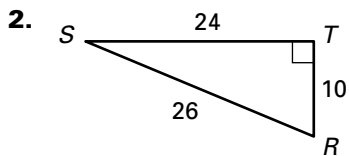
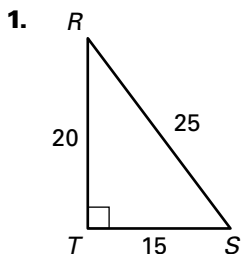


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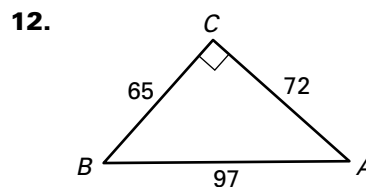
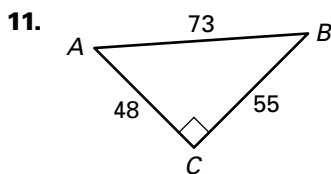
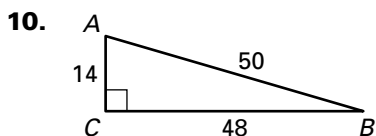
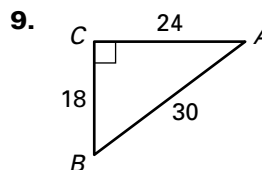
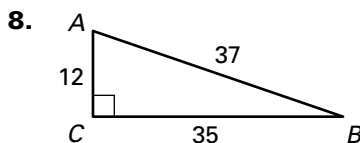
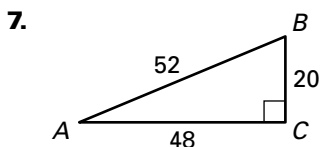
Practice B

For use with the lesson "Apply the Sine and Cosine Ratios"

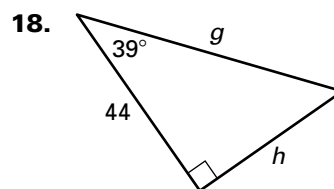
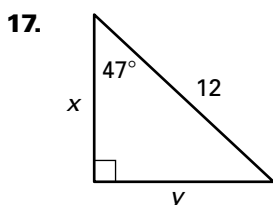
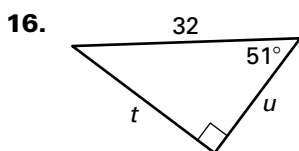
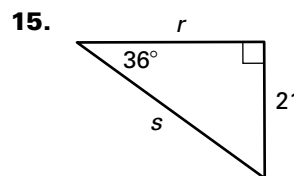
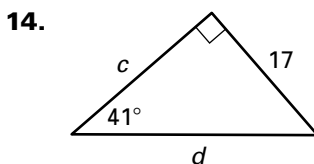
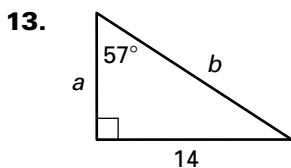
Find $\sin R$ and $\sin S$. Write each answer as a fraction and as a decimal. Round to four decimal places, if necessary.



Find $\cos A$ and $\cos B$. Write each answer as a fraction and as a decimal. Round to four decimal places, if necessary.



Use a cosine or sine ratio to find the value of each variable. Round decimals to the nearest tenth.



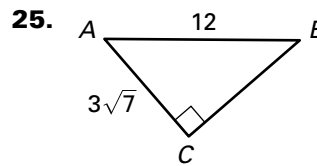
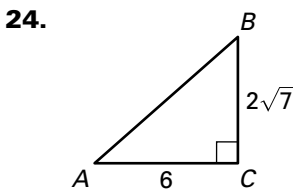
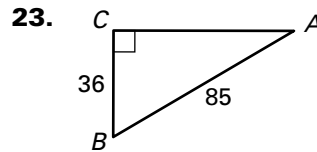
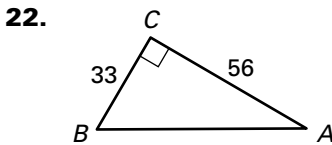
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Practice B *continued*
For use with the lesson "Apply the Sine and Cosine Ratios"

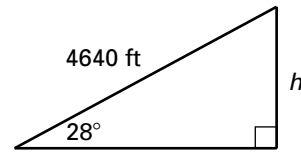
Use the 45°-45°-90° Triangle Theorem or the 30°-60°-90° Triangle Theorem to find the sine and cosine of the angle.

19. a 30° angle 20. a 45° angle 21. a 60° angle

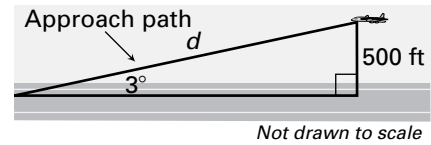
Find the unknown side length. Then find $\sin A$ and $\cos A$. Write each answer as a fraction in simplest form and as a decimal. Round to four decimal places, if necessary.



26. **Ski Lift** A chair lift on a ski slope has an angle of elevation of 28° and covers a total distance of 4640 feet. To the nearest foot, what is the vertical height h covered by the chair lift?



27. **Airplane Landing** You are preparing to land an airplane. You are on a straight line approach path that forms a 3° angle with the runway. What is the distance d along this approach path to your touchdown point when you are 500 feet above the ground? Round your answer to the nearest foot.



28. **Extension Ladders** You are using extension ladders to paint a chimney that is 33 feet tall. The length of an extension ladder ranges in one-foot increments from its minimum length to its maximum length. For safety, you should always use an angle of about 75.5° between the ground and the ladder.
- Your smallest extension ladder has a maximum length of 17 feet. How high does this ladder safely reach on a vertical wall?
 - You place the base of the ladder 3 feet from the chimney. How many feet long should the ladder be?
 - To reach the top of the chimney, you need a ladder that reaches 30 feet high. How many feet long should the ladder be?

