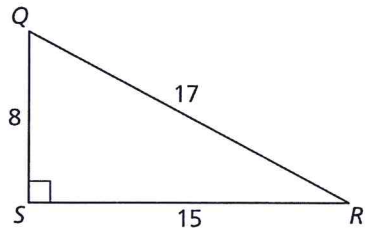


9.6 Practice A

In Exercises 1–3, determine which of the two acute angles has the given trigonometric ratio.

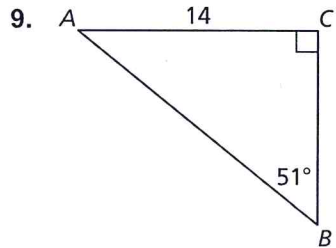
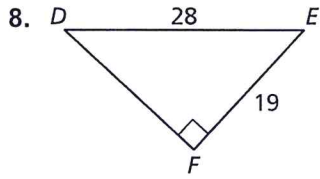
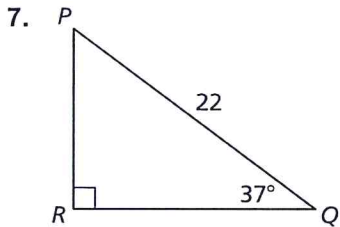
- The sine of the angle is $\frac{8}{17}$.
- The cosine of the angle is $\frac{15}{17}$.
- The tangent of the angle is $\frac{15}{8}$.



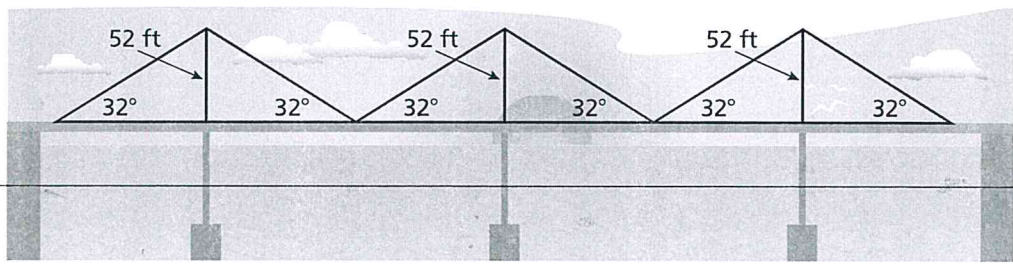
In Exercises 4–6, let $\angle B$ be an acute angle. Use a calculator to approximate the measure of $\angle B$ to the nearest tenth of a degree.

- $\sin B = 0.64$
- $\cos B = 0.12$
- $\tan B = 2.18$

In Exercises 7–9, solve the right triangle. Round decimal answers to the nearest tenth.



10. Use the diagram to find the distance across the suspension bridge. Round your answer to the nearest foot.



11. Use the diagram to find the acute angle formed by Washington Boulevard and Willow Way. Round your answer to the nearest tenth.

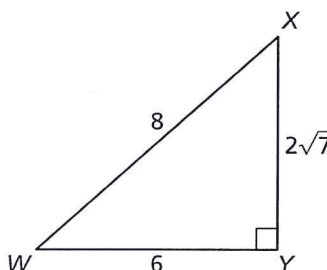


9.6

Practice B

In Exercises 1 and 2, determine which of the two acute angles has the given trigonometric ratio.

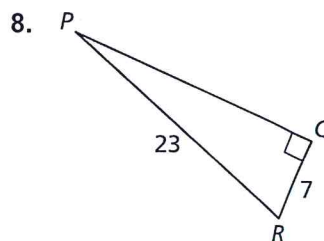
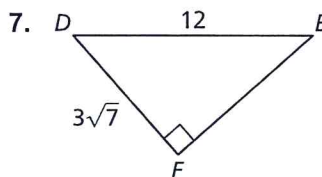
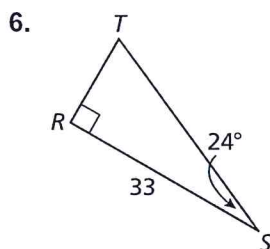
- The cosine of the angle is $\frac{3}{4}$.
- The tangent of the angle is $\frac{3\sqrt{7}}{7}$.



In Exercises 3–5, let $\angle H$ be an acute angle. Use a calculator to approximate the measure of $\angle H$ to the nearest tenth of a degree.

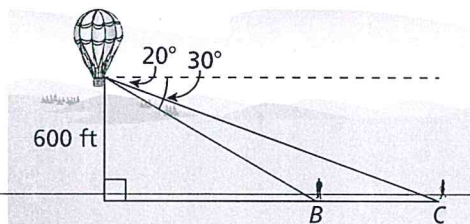
- $\sin H = 0.41$
- $\cos H = 0.05$
- $\tan H = 5.18$

In Exercises 6–8, solve the right triangle. Round decimal answers to the nearest tenth.



9. You are in a hot air balloon that is 600 feet above the ground. You can see two people. The angles of depression to person B and to person C are 30° and 20° , respectively.

- How far is person B from the point on the ground below the hot air balloon?
- How far is person C from the point on the ground below the hot air balloon?



- How far apart are the two people?

10. On a *topographic map*, the contour lines show changes in elevation of the land. You and a friend are hiking on Kasatochi Island.

- Find the difference in elevation (in miles) between you and your friend.
- Use a ruler to find the horizontal distance (in miles) between you and your friend.
- What is the angle of elevation from you to your friend?

