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### 9.6 Practice B

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

1. The cosine of the angle is $\frac{3}{4}$.
2. 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.
3. $\sin H=0.41$
4. $\cos H=0.05$
5. $\tan H=5.18$

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

6. 


7.

8.

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 $30^{\circ}$ and $20^{\circ}$, respectively.
a. How far is person $B$ from the point on the ground below the hot air balloon?
b. How far is person $C$ from the point on the ground below the hot air balloon?
c. How far apart are the two people?

10. On a typographic map, the contour lines show changes in elevation of the land. You and a friend are hiking on Kasatochi Island.
a. Find the difference in elevation (in miles) between you and your friend.
b. Use a ruler to find the horizontal distance (in miles) between you and your friend.
c. What is the angle of elevation from you to your friend?


