$\qquad$ Hour $\qquad$

## HW 9.5 The Sine and Cosine Ratios

In Exercises 1 and 2, find $\sin J$, $\sin K, \cos J$, and $\cos K$. Write each answer as a fraction and as a decimal rounded to four places.
1.

2.


In Exercises 3-6, write the expression in terms of sine or cosine.
3. $\sin 22^{\circ}$
4. $\cos 56^{\circ}$
5. $\cos 15^{\circ}$
6. $\sin 37^{\circ}$

In Exercises 7-9, find the value of each variable using sine and cosine. Round your answers to the nearest tenth.
7.

8.

9.

10. Which statement cannot be true? Explain.
A. $\sin A=0.5$
B. $\sin A=1.2654$
C. $\sin A=0.9962$
D. $\sin A=\frac{3}{4}$

11. The angle of depression is $11^{\circ}$ from the bottom of a boat to a deep sea diver at a depth of 120 feet. Find the distance $x$ the diver must swim up to the boat to the nearest foot.


