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## 4-1 Practice <br> Right Triangle Trigonometry

Find the exact values of the six trigonometric functions of $\boldsymbol{\theta}$.
1.

2.


Find the value of $\boldsymbol{x}$. Round to the nearest tenth, if necessary.
3.

4.

5. On a college campus, the library is 80 yards due east of the dormitory and the recreation center is due north of the library. The college is constructing a sidewalk from the dormitory to the recreation center. The sidewalk will be at a $56^{\circ}$ angle with the current sidewalk between the dormitory and the library. To the nearest yard, how long will the new sidewalk be?
6. If $\cot A=8$, find the exact values of the remaining trigonometric functions for the acute angle $A$.

Find the measure of angle $\boldsymbol{\theta}$. Round to the nearest degree, if necessary.
7.



Solve each triangle. Round side measures to the nearest tenth and angle measures to the nearest degree.
9.


11. SWIMMING The swimming pool at Perris Hill Plunge is 50 feet long and 25 feet wide. If the bottom of the pool is slanted so that the water depth is 3 feet at the shallow end and 15 feet at the deep end, what is the angle of elevation at the bottom of the pool?

