7-1

NAME _____ DATE _____ PERIOD _____

Practice

Basic Trigonometric Identities

Use the given information to determine the exact trigonometric value if $0° < \theta < 90°$.

1. If $\cos \theta = \frac{1}{4}$, find $\tan \theta$.

2. If $\sin \theta = \frac{2}{3}$, find $\cos \theta$.

3. If $\tan \theta = \frac{7}{2}$, find $\sin \theta$.

4. If $\tan \theta = 2$, find $\cot \theta$.

Express each value as a trigonometric function of an angle in Quandrant I.

5. $\cos 892°$

6. $\csc 495°$

7. $\sin \frac{23\pi}{3}$

Simplify each expression.

8. $\cos x + \sin x \tan x$

9. $\frac{\cot A}{\tan A}$

10. $\sin^2 \theta \cos^2 \theta - \cos^2 \theta$

11. ***Kite Flying*** Brett and Tara are flying a kite. When the string is tied to the ground, the height of the kite can be determined by the formula $\frac{L}{H} = \csc \theta$, where L is the length of the string and θ is the angle between the string and the level ground. What formula could Brett and Tara use to find the height of the kite if they know the value of $\sin \theta$?