**Calculus**
**Worksheet:  Derivatives of Trigonometric Functions**

Find each of the following derivatives.

1.  $\frac{d}{dx} \cos x^3$

2.  $\frac{d}{dx} \cos^3 x$

3.  $\frac{d}{dx} \sin \sqrt{x}$

4.  $\frac{d}{dx} \sqrt{\sin x}$

5.  $\frac{d}{dx} \sin(5 - 3x)$

6.  $\frac{d}{dx} \cot x$

7.  $\frac{d}{dx} \sec x$

8.  $\frac{d}{dx} \csc x$

9.  $\frac{d}{dx} \sin^2 x \cdot \cos^2 x$

Find f "(x) for each function below.

10.  $f(x) = \sin x$

11.  $f(x) = \cos^2 x$

12.  $f(x) = \tan x$