Name____

Differentiate the following functions.

$$1. \quad f(t) = \cos(5t)$$

2.
$$y = 5 \cos x$$

3.
$$y = (1 - x^3)^{11}$$

$$4. \quad y = \sqrt{\cos(2x)}$$

$$5. \quad y = \cos\sqrt{2x}$$

6.
$$y = (3t+1)^4 (1-2t)^{-3}$$

7.
$$F(j) = \sqrt{\frac{j-2}{3+j}}$$

8.
$$y = \tan^3(\cos x)$$

9.
$$F(\omega) = \csc^2(\cos \omega)$$

10.
$$F(x) = \cos(\cos(\cos(\cos(x^3 - 3x))))$$