Name:_____

Quiz 4 (try 2)

This quiz can be substituted for the original quiz 4 result. I recommend that everyone attempts this, even if only for practice. The better score will count.

1. State the **definition** of the derivate of the function *f* at a point x. Note that there are *two* ways to express the derivative, either one will be okay (as a hint, the one with the *h* is usually easier).

2. Let $f(x) = 2x^2 - 1$. Find $f'(x)$ using either *one* of the two *definitions*.

3. For each function, find the derivative $f'(x)$ at *x* using any method you like or any result from class. Then use the **definition** of derivative to verify your answer:

   a. $f(x) = \sqrt{x}$
   Answer:

   Using the definition:

   b. $f(x) = \frac{3}{x}$
   Answer:

   Using the definition:

   c. $f(x) = \cos(x)$
   Answer:

   Using the definition:

4. Use the definition of derivative to find *f'* for $f(x) = \sqrt{3x - 1}$