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 $f\left(x\right)=2x^{2}-1$. 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:
	1. $f\left(x\right)=\sqrt{x}$

Answer:

Using the definition:

* 1. $f\left(x\right)=\frac{3}{x}$

Answer:

Using the definition:

* 1. $f\left(x\right)=cos⁡(x)$

Answer:

Using the definition:

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