Name: _____ Academic Integrity Signature: _____

I have abided by the UNCG Academic Integrity Policy.

Note: Correct numerical answers without justification will receive little or no credit.

1. (5 points) (Definition) The derivative of a function f at a, denoted $f'(a)$, is

Solution:

$$f'(a) = \lim_{h \to 0} \frac{f(a+h) - f(a)}{h}$$

2. (5 points) (Computation) Let $f(x) = 3x - 7$. Compute $f'(0)$.

Solution: Note that $f'(0)$ is the slope of the tangent line to the curve $y = 3x - 7$ at $x = 0$. The line has constant slope 3, so $f'(0) = 3$.

 Points earned: _____ out of 10.