

Math 124 Quiz #3
April 22, 2008

Name: _____

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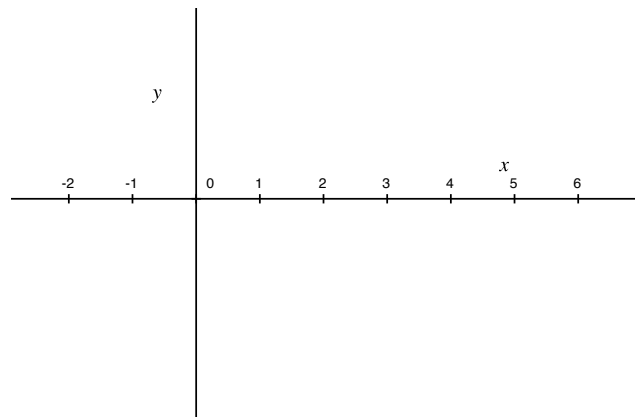
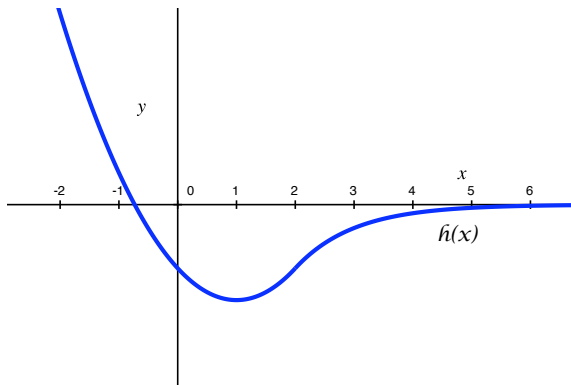
1. (2 pts.) The average height (in inches) of a female that is t years of age is given by $h = f(t)$.
What does the statement $f'(8) = 2$ mean? What are the units of the derivative?

2. $g(x) = 3x^2 + x$

- (a) (3 pts.) Find the derivative function $g'(x)$ using the limit definition of the derivative.

- (b) (2 pts.) Find an equation of the tangent line of g at $x = 2$.

3. (3 pts.) Sketch the derivative function $h'(x)$ given the graph of h below.



Note: $f'(a) = \lim_{h \rightarrow 0} \frac{f(a+h) - f(a)}{h}$ or $\lim_{x \rightarrow a} \frac{f(x) - f(a)}{x - a}$ provided these limits exist.