

# Math 2143 - Brief Calculus with Applications

Quiz #5 - 2008.02.21

Name: \_\_\_\_\_

---

1. Compute the following limit:

$$\lim_{h \rightarrow 0} \frac{\sqrt{1+h} - 1}{h}$$

2. Write down the equation for the slope of the tangent line to the function  $f(x) = \sqrt{1+x}$  at  $x = 0$ .

3. Find an equation of the tangent line to  $f(x) = \sqrt{1+x}$  and  $x = 0$ .