Name: _____ **Math 1030 Quiz #3A** (June 8th, 2010)

1. Compute the derivative of $f(x) = x^2 + 2x + 3$ using the limit definition of the derivative:

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

2. Find the derivative of $y = x^2 \ln(x) + (1 + e^x)^{100}$

Name: _____ **Math 1030 Quiz #3A** (June 8th, 2010)

1. Compute the derivative of $f(x) = x^2 + 2x + 3$ using the limit definition of the derivative:

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

2. Find the derivative of $y = x^2 \ln(x) + (1 + e^x)^{100}$

Name: _____ **Math 1030 Quiz #3B** (June 8th, 2010)

1. Compute the derivative of $f(x) = x^2 + 4x - 1$ using the limit definition of the derivative:

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

2. Find the derivative of $y = e^x \ln(x) + \sqrt{3x+1}$

Name: _____ **Math 1030 Quiz #3B** (June 8th, 2010)

1. Compute the derivative of $f(x) = x^2 + 4x - 1$ using the limit definition of the derivative:

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

2. Find the derivative of $y = e^x \ln(x) + \sqrt{3x+1}$