Name:_____

MA 2320 Quiz 1

1. Compute the following derivatives.

   (a) $\dfrac{d}{dx}\left[3x^3 - e^{x^2+1} + \dfrac{5}{x}\right]$

   (b) $\dfrac{d}{dx}\left[\sqrt{e^x - \ln(x)}\right]$

   (c) $\dfrac{d}{dx}\left[e^{x^2+1}\tan(3x - 1)\right]$

2. Do only one of the following:

   (a) Compute the Riemann sum approximation of $\int_1^3 2x^2 + 1$ with $n = 10$.

   (b) Compute $\int_1^3 2x^2 + 1$ by using the definition of the integral.