QUIZ 9 - MATH 112 Friday, November 16

YOUR NAME:_____ George Voutsadakis

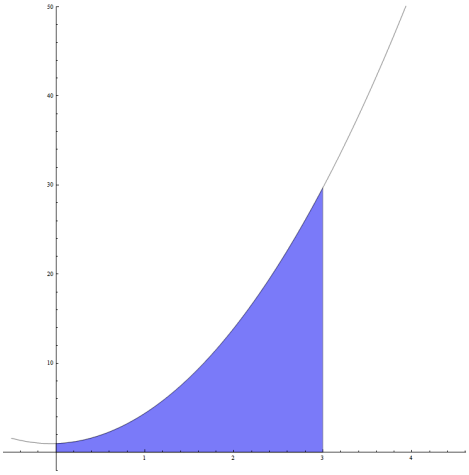
Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Compute the integrals:

   (a) $\int (6e^{2x} - \frac{7}{x} - \frac{1}{3\sqrt[3]{x^4}})dx =$

   (b) $\int \frac{(2x-1)(7x+5)}{x^2}dx =$

2. Find the area under the graph of $f(x) = 3x^2 + e^{x/3}$ from $x = 0$ to $x = 3$.



3. An average child of age x years grows at the rate of $6x^{-1/2}$ inches per year, for $2 \leq x \leq 16$.

   (a) Find an equation for the average height of a child at age t, $2 \leq t \leq 16$, if the average child of a 4 year old child is 40 inches.

   (b) Find the average height gain of a child between the ages of 4 to 9 years of age.

   (c) Find the average height of a child between the ages of 4 and 9 years of age.