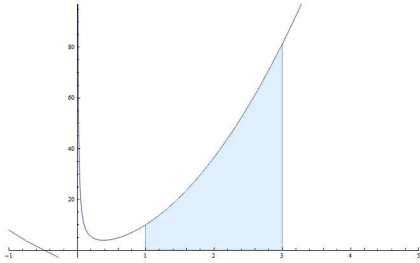


YOUR NAME: _____

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 area of the region under the graph of $f(x) = 9x^2 + x^{-1}$ from $x = 1$ to $x = 3$.



2. A student can memorize words at the rate of $6e^{-t/5}$ words per minute after t minutes. What is the total number of words that the student can memorize after t minutes?

3. Evaluate $\int (x^4 - 3x^2)e^{x^5 - 5x^3} dx$