

Quiz OneLecture: 8:30
 9:30SI: Alex Becca
 Ashley Jason
 Avni Matt**No notes. Calculators are allowed.**

Write clearly and explain your reasoning.

1 (5 points) Evaluate the indefinite integral $\int x^2 (x^3 + 5)^{15} dx$.

2 (5 points) Evaluate the indefinite integral $\int \frac{2x + 1}{2x^2 + 2x + 7} dx$.

3 (5 points) In 2007, there were 420 students in a particular school district. Research indicates that the district expects this number will increase at a rate of $3t + 20$, where t is the number of years since 2007. Estimate the number of students in the district in 2011.

4 (5 points) The depreciation rate of a new car follows the equation $V'(t) = -5000e^{-0.4t}$ where $V(t)$ is the value of the car and t years after purchase. If the car cost \$22,000 new, what is the value of the car after 4 years?