

YOUR NAME: _____

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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. Use substitution to evaluate $\int \frac{2x^2 + x}{(4x^3 + 3x^2)^2} dx$.

2. Use substitution to evaluate the definite integral $\int_0^{\sqrt[3]{3}} x^5 \sqrt{x^3 + 1} dx$.
(**Hint:** View $x^5 = x^3 \cdot x^2$.)

