

Name:

QUIZ 6

You must show all of your work for full credit.

Problem 1 (5 points). Calculate $\int \frac{10x}{3 + 5x^2} dx$.

Problem 2 (5 points). Calculate $\int x(x + 1)^5 dx$.

Problem 3 (5 points). Use $n = 4$ rectangles and right endpoints to approximate the area under the curve $y = x^2$ between $x = 1$ and $x = 5$. Is this approximation an underestimate or an overestimate for the actual area?

Problem 4 (5 points). Use formulas from geometry to calculate $\int_1^3 (5 + x) dx$.