

Name:

ID:

Q1) Evaluate $\int_0^3 |x^2 - 2x| dx$.

Q2) Using five rectangles and left endpoints, estimate the area under graph of $f(x) = 3x - x^2$ from $x = 0$ to $x = 5$.

Q3) Find a lower bound of $\int_1^5 e^{x^2} dx$.

Q4) If f is continuous and $\int_0^x f(t)dt = x\sin(\pi x)$, find $f(4)$.