

QUIZ 2

Time: 10min

1. Suppose that water leaks out of a tank at the rate of $R(t) = 3t^2$ gallons per minute. Suppose that there are 27 gallons of water in the tank initially. How long does it take before the tank is empty? (*Use the fundamental theorem of Calculus.*)
2. Is it true that $\int_0^{\sqrt{\pi}} \sin(x^2) dx \leq \sqrt{\pi}$? Why?

Each problem is worth 5 pts.