Your Name:

Duration of the Quiz is 20 minutes. There are three problems, worth 20 points. Show all your work for full credit. Books, notes etc. are prohibited. Calculators are NOT permitted.

1. A particle moves along a line so that its velocity at time t is $v(t) = t^2 - 3t + 2$ (measured in meters per second).

    (a) Find the displacement of the particle during the time period $0 \leq t \leq 2$.

    (b) Find the distance traveled by the particle during this time period.

2. Evaluate the integral using a suitable substitution.

$$\int \frac{1}{x\sqrt{\ln x}} \, dx$$

3. Evaluate the integral using a suitable substitution.

$$\int_0^{\pi/2} \frac{\cos x}{1 + \sin x} \, dx$$