Present neatly. Justify for full credit. ~~No Calculators~~.

Name _____ Score _____ 20 minutes

1) Use the limit definition of a definite integral to evaluate $\int_{-1}^{1} x^3 + 2x - 3\,dx$

(10 points)

2) SHORT ESSAY: State and explain BOTH parts of the Fundamental Theorem of Calculus. (5 points)

3)

Suppose that a particle moves along a coordinate line so that its velocity at time *t* is $v(t) = 2 + \cos t$. Find the average velocity of the particle during the time interval $0 \le t \le \pi$. [5 points]