1. (3 pts) A particle moves along a line with velocity function \( v(t) = t^2 - t \), where \( v \) is measured in meters per second. Find the total distance travelled by the particle during the time interval \([0, 2]\).

2. (3 pts) If \( f \) is a continuous function on \([0, 1]\), evaluate
\[
\int_0^1 [1 - f(x)] \, dx + \int_0^1 f(1 - x) \, dx
\]

3. (4 pts) Set up, DO NOT EVALUATE an integral or integrals that gives the area of the region bounded by the curves
\[
y = x^2, \quad y = 2x - x^2, \quad x = 0 \quad \text{and} \quad x = 2.
\]