MAT 136 (Calculus I) Prof. Swift
In-class worksheet: The Fundamental Theorem of Calculus, Part 1

1. Evaluate $\displaystyle\int_0^2 x^3\, dx$

2. Evaluate $\displaystyle\int_0^3 t^2\, dt$

3. Evaluate $\displaystyle\int_0^x t^2\, dt$

4. Evaluate $\displaystyle\int_0^2 |1 - x^2|\, dx$. Hint: $\displaystyle\int_a^b f(x)\, dx + \int_b^c f(x)\, dx = \int_a^c f(x)\, dx$