Math 1552, Integral Calculus

Section 5.4: The Fundamental Theorem of Calculus

1. Evaluate the integrals:

(a) $\int_1^2 \frac{3x-5}{x^3} dx$.

(b) $\int_1^3 |x-2| dx$.

2. Find $F'(2)$ for the function

$$F(x) = \int_{\frac{8}{x}}^{x^2} \left(\frac{t}{1-\sqrt{t}} \right) dt.$$