

1. Evaluate the following definite integral in two ways: using our definition of the definite integral (i.e., the limit of a Riemann sum) and using the FTC, part 2)

$$\int_{-1}^2 (2x^2 - 3x + 1) dx$$

2. Determine $\frac{d}{dx} \left(\int_{\frac{1}{x^2}}^{\frac{1}{x}} \tanh t dt \right)$