

1. (3pts) Evaluate $\int_{-1}^2 (8x^3 - 10) dx$.

2. (3pts) Find $\frac{d}{dx} \int_3^x \frac{\cos(t)}{t^2 - 5t + 2} dt$.

3. (4pts) Find the average of the function $f(x) = 2x^2 - 6$ on the interval $[2, 5]$.