

1. Use the method of Riemann sums to evaluate  $\int_{-1}^1 (1 - x^2) dx$ .

2. Use the FIRST FUNDAMENTAL THEOREM OF CALCULUS to find the following derivatives.

(a)  $D_x \left( \int_9^x (2t^2 + \sqrt{t}) dt \right)$ .

(b)  $\frac{d}{dx} \left( \int_x^2 (s - 2) \sin(s) ds \right)$ .

(c)  $D_x \left( \int_{-20}^{x^2} 5 \tan(t) dt \right)$ .