1. If $f(x) = \sqrt{1-x^2}$, $[0,1]$ and $n=2$. Compute the sum of the areas. (Use the rectangle method)

2. Evaluate the integral $\int \left(3e^2 + \frac{1}{\csc x} + \frac{5(x^2-1)^2}{x^2}\right) dx$
3. Let \( f(x) = 3x - 3; [a, x] = [2, x] \). Use simple area formula from geometry to find the area function \( A(x) \) that gives the area between the graph of the function \( f(x) \) and the interval. Confirm that \( A'(x) = f(x) \).

4. Find the area between the function \( f(x) = 6x + 2 \), and the interval \([1, 2]\) on the x-axis. (Use the antiderivative method)