C12 - 5.2 - Int Ram/Anti/Pol/Rad/t/Exp/ln/Tri/±1 Rev

Find the area under the graph from [0,2] using four (n=4) rectangles using Riemann's LRAM, MRAM & RRAM, and Trapezoidal Rule .

$y = x^2 + 1$ $y = x^2 - 1$ $y = x^3 - 1$

Anti-differentiate

$\int 3x^2 dx =$ $\int (3x(x+1)^2) dx =$ $\int \frac{x^2 + 2x}{x} dx =$ $\int \frac{(x+1)^3}{x} dx =$

$\int \sqrt{4x} dx =$ $\int \sqrt{x}(x+1) dx =$ $\int \frac{2}{x\sqrt{x}} dx =$

$\int (2x+3)^2 \, dx =$ $\int \left(2x + \frac{1}{x}\right)^2 dx =$

$\int \frac{2}{x+1} dx$ $\int e^{2x} \, dx$ $\int 5^{2x} \, dx$

w/out U Sub

$\int (e^x + 2x) \, dx =$ $\int \frac{x}{x+1} \, dx$ $\int \frac{1}{1+e^x} \, dx$

$\int cos2x \, dx =$ $\int \sin^2 x \, dx =$ $\int \frac{secx}{\tan^2 x} \, dx$