

Rectangular approximation method worksheet

$$\int_a^b f(x) dx = \int \quad dx$$

Sketch **graph** of function

Lower bound: $a =$

Upper bound: $b =$

Number of subintervals: $n =$

Width of each subinterval: $\Delta x = \frac{b-a}{n} =$

Rectangular approximation method (circle one): **LRAM** | **RRAM** | **MRAM**

Subinterval	Left edge of subinterval	Right edge of subinterval	Evaluation point	Height
i	x_i^L	x_i^R	x_i^*	$f(x_i^*)$
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
				$\Sigma =$

Area:

$$\begin{aligned} \int_a^b f(x) dx &\approx h_1\Delta x + h_2\Delta x + \dots + h_N\Delta x \\ &= (h_1 + h_2 + \dots + h_N)\Delta x \\ &= \end{aligned}$$

$$\text{TAM} = \frac{\text{LRAM} + \text{RRAM}}{2}$$