

Riemann Sums

This program computes the Left Sum, Right Sum, Midpoint Sum, Trapezoidal and Simpson Rules for a given function on a specific interval and a given number of points. We call the program using the statement

$$rsums(f(x), x, a, b, n)$$

where $f(x)$ is the function, x the variable of integration, a and b give the interval of integration and n is the number of points for the sums.

Example.

$$rsums(\sin(x), x, 0, \pi, 20)$$

The following screen show the results of the computation.

Quit	Print	Del	Help	F5	Save	
Left	Right	Mid	Trap	PrgmIO	Help	
L sum=1.99589						
R sum=1.99589						
M sum=2.00206						
Trape=1.99589						
Simps=2.						
MAIN RAD AUTO FUNC 1/20						