

Writing Assignment 9

Due Monday, October 26, 11:59 PM

Let f be a function. Some people call the number

$$\frac{1}{b-a} \int_a^b f(x) dx$$

the *average value* of f over the interval $[a, b]$. (This is the integral, divided by the number $b - a$.)

Why should this be called the average value of f ? Why shouldn't it? Can you think of real world, or approximating, examples relating to why the use of the word *average* is or is not justified?