

AI-1

Formula for Average
Value of $f(x)$ on $[a, b]$

Example One: Find the average value of $f(x) = \sin x$

A. On $[0, \pi]$

B. On $[0, 2\pi]$

Example Two: Find the average value of $f(x) = 2x + x^2$ on $[8, 10]$

Example Three:

A. $\int_a^b \frac{\text{miles}}{\text{hour}} =$

B. $\frac{1}{b-a} \int_a^b \frac{\text{miles}}{\text{hour}} =$

C. $\int_a^b \frac{\text{gallons}}{\text{minute}} =$

D. $\frac{1}{b-a} \int_a^b \frac{\text{gallons}}{\text{minute}} =$