

Writing Assignment 8

Due Monday, 19, 11:59 PM

Come up with at least three real-life examples where you might want to find the area between the graph of a function and the x-axis.

Make sure to explain what the function is, including what the input and the output of the function measures. (That is, explain what the horizontal axis keeps track of, and what the vertical axis keeps track of.)

Explain to me what the geometric area measures in your example. What are the units of this area, given the units you used in the inputs and outputs of your functions?

As an example, if $f(t)$ measures the *velocity* of an object at time t , then the vertical axis may have units of meters-per-second, while the horizontal axis may have units of seconds. Then the area I measure would have units of

$$\text{meters/sec} \times \text{sec} = \text{meters.}$$

In other words, it seems like area would measure some sort of distance!

If you can't think of anything, you can google "applications of integrals."