

## Calc II - Prep for Quiz 2

Our second quiz will be tomorrow - Friday, June 18. This will be an *in class* quiz. We'll start it by 9:30 and you must turn it in by the end of class.

This quiz will be you, paper, and pencil. Calculators will not be needed or permitted.

The structure of the quiz might look something like the following, though the problems will certainly be different.

- Figure 1 shows the graph of  $f(x) = \sin(\pi x/2)$ .
  - Find the volume of the solid of revolution obtained by spinning the shaded region around the  $x$ -axis.
  - Set up an integral representing the arc length of the portion of the graph over  $[0, 2]$ .
- Suppose we wish to estimate

$$\int_{-2}^1 x^3 dx$$

using a *midpoint sum*.

- Write down the midpoint sum with  $n$  terms.
- Determine how large  $n$  must be to ensure that our estimate is within 0.001 of the actual value.

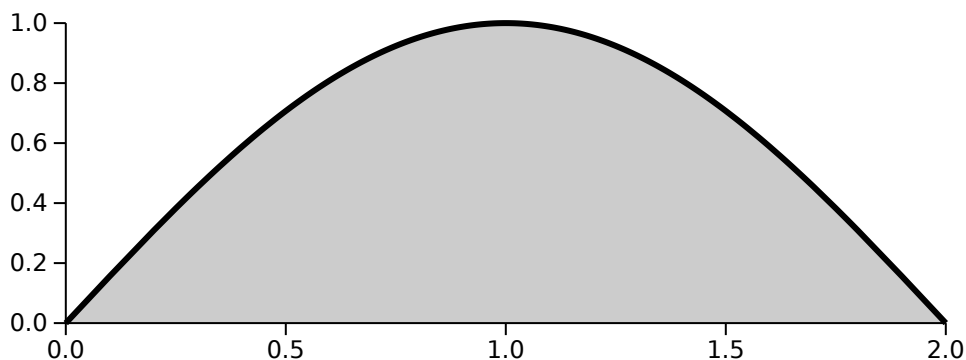


Figure 1: The graph of  $f(x) = \sin(\pi x/2)$