

5C Checkup

1. Find the average value of the function on the interval. At what point(s) in the interval does the function assume its average value?

$$y = x^2 - 1, [0, \sqrt{3}]$$

2. Find the average value of the function on the interval without integrating, by appealing to the geometry of the region between the graph and the x-axis.

$$f(x) = \begin{cases} x + 4, & -4 \leq x \leq -1, \\ -x + 2, & -1 < x \leq 2, \end{cases} \text{ on } [-4, 2]$$

(Hint – Graph it first)