Math 151 **Name (Print):** _____
Spring 2021 redID: _____
Week#03 Section # _____

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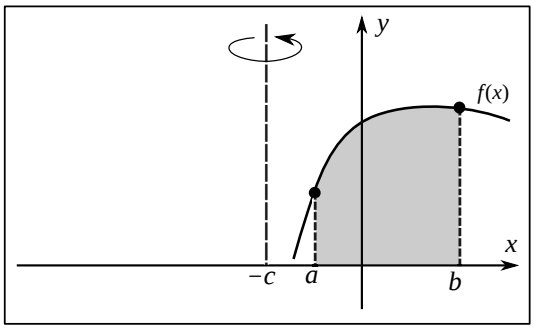
1. [P452 Ex2] Sketch the region $\mathcal{R}$ enclosed by the curves $y = x$ and $y = x^2$. Using CYLINDRICAL SHELLS, find the volume of the solid obtained by rotating the region $\mathcal{R}$ about the $y-$axis. Sketch a typical shell.

2. [P452 Ex4] Find, using SHELLS, the volume of the solid obtained by rotating the region bounded by $y = x - x^2$ and $y = 0$ about the line $x = 2$. Sketch a typical shell.

3. Using the method of volumes by **SHELLS** write an integral for the solid generated by rotating about the $x = -c$ axis (where c is a positive constant), the shaded region shown in the plot.



4. [Exercise#52] Find, using the method of volumes by SLICES, the volume of a pyramid of height h with an equilateral triangle base with side a.