Math 151 **Name (Print):** _____
Spring 2021 redID: _____
Week#02 Section # _____

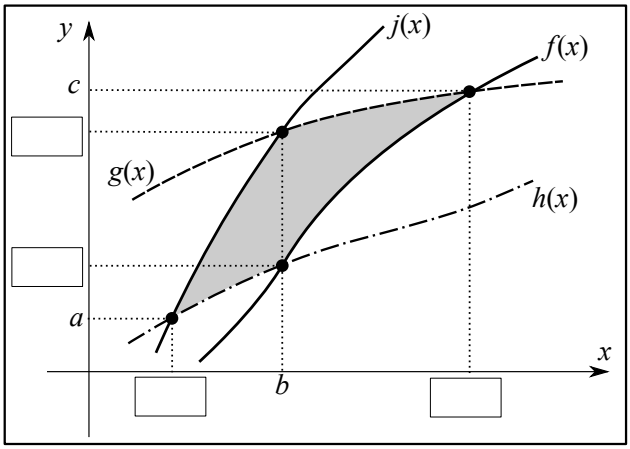
1. Sketch the region $\mathcal{R}$ enclosed by the curves $x = y^2$ and $y = 2 - x$. **Draw a sketch!**

   (a) Using an x-integral find the area encolsed by these functions.

   (b) Using a y-integral find the area encolsed by these functions.

   (c) Compare/contrats the above two results.

2. Write an x-integral AND a y-integral for the shaded region in the figure. Fill the empty boxes in the figure.



3. Sketch the region $\mathcal{R}$ enclosed by the curves $y = x$ and $y = x^2$.

   (a) [P442 Ex5] Find the volume of the solid obtained by rotating the region $\mathcal{R}$ about the line $y = 2$. Sketch a typical disk or washer.

   (b) [P444 Ex6] Find the volume of the solid obtained by rotating the region $\mathcal{R}$ about the line $x = -1$. Sketch a typical disk or washer.