

MAT 21B, Winter 2023
Homework 2

Due before 2:00pm on Wednesday, February 8

Please write the homework solutions in connected sentences and explain your work. Mark the answers to each question. Scan or take pictures of your homework and upload it to Gradescope before due time.

Find the volumes of the solids obtained by revolving the regions bounded by some curves around given axis:

1. Region bounded by $y = x - x^2$, $y = 0$, around the x -axis.
2. Region bounded by $y = 4 - x^2$, $y = 2 - x$, around the x -axis.
3. Region bounded by $y = 2x$, $y = x/2$, $x = 1$, around the y -axis.
4. Region bounded by $y = 2 - x^2$, $y = x^2$, $x = 0$, around the y -axis.