

Math 1552 Summer 2023
Supplementary Problems for
Final Exam Practice

Name (Print): _____

Teaching Assistant/Section: _____

By signing here, you agree to abide by the **Georgia Tech Honor Code**: *I commit to uphold the ideals of honor and integrity by refusing to betray the trust bestowed upon me as a member of the Georgia Tech Community.*

Sign Your Name: _____

Please clearly organize your work, show all steps, simplify all answers, and BOX your answers.

1. Set up an integral which will compute the volume of the solid obtained by revolving the triangle with vertices $(3, 3)$, $(7, 3)$, $(7, 7)$ about
 - (a) the x -axis using the washer method,
 - (b) about the line $x = 1$ using the cylindrical shell method,
 - (c) the y -axis using the cylindrical shell method, and
 - (d) the line $y = 8$ using the washer method.

Set up the integral but do not integrate or simplify!

2. Set up an integral which computes the area between the curves $y = -x^2 + 3$ and $y = x^2 - 3$.
Set up the integral but do not integrate or simplify!