

Homework Set 10

DUE: NOV 18, 2019 (AT THE BEGINNING OF CLASS)

To be handed in:*Please write your solution to Problem 1 on a single sheet of paper!*

1. Find the volume of the following regions R in 3-dimensional space. First, you should sketch the region R to help you set up the correct triple integral.
 - a) R is the region formed by points $(x, y, z) \in \mathbb{R}^3$ such that $x \leq 4 - y^2$, bounded above by the plane $z = x$ and below by the plane $z = 0$.
 - b) R is the region bounded by the paraboloid $z = 36 - x^2 - y^2$ with $z \geq 0$.

NOT to be handed in (but recommended for you to practice with):

2. Textbook (5th edition) Section 14.6, Exercises 13-17, 23-25, 27-31