

MAT 21 D - Problem Set 2
Due beginning of discussion session on April
20th

Problem numbers are from Thomas' Calculus, 13th edition. If unsure about which problem to solve, ask. Collaboration is permitted but every student must write his or her own solution; looking for solutions from external sources (books, the web, material from previous years, etc.) is prohibited.

1 Solve and turn in the following problems:

1. Calculate the average of $f(x, y, z) = x^2 + y^2 + z^2$ over the set of points satisfying $|x| + |y| + |z| \leq 1$.

2 Solve but do not turn in the following problems:

Section 15.3: 3, 13, 19, 25.

Section 15.4: 3, 11, 23, 29, 33.

Section 15.5: 5, 9, 21ab, 31, 35, 41.