MAT 150A, Fall 2019
Homework Assignment 1

Due before the start of the class on Wednesday, October 2

Please read Sections 1.5, 2.1 and 2.2 of the textbook before starting on the problem set.

Written Assignment:

Page 34, exercise 5.1; Page 69, exercise 2.3; Problems A and B.

A. Find the number of even and odd permutations in S_n for $n = 1, 2, 3, 4$.

B. Present the following permutation as a product of non-intersecting cycles for all k:

$$(1\ 2\ 3)^k = \underbrace{(1\ 2\ 3) \cdots (1\ 2\ 3)}_{k \text{ times}}$$

The homework must be legible, and written in connected sentences that explains what you are doing. Just the answer (whether correct or not) is not enough. Please put your name and section number on every page and staple the pages together. Homework should be handed in on time, late homework will not be graded.