# Spring 2019, Math 320: Week 13 Preliminary Problems 

Due: Thursday, May 2nd, 2019
Introduction to Groups

Preliminary problems. These problems should be completed before discussion on Thursday.
(P1) Illustrate the elements of $D_{3}$, the symmetries of a triangle with vertices labeled $1,2,3$ (there should be 6 in total: 2 rotations, 3 flips, and the identity).

