## Fall 2018, Math 320: Week 15 Preliminary Problems Due: Thursday, December 6th, 2018 Permutation Groups

Preliminary problems. These problems should be completed before discussion on Thursday.

(P1) Write all 6 elements of  $S_3$  in permutation notation.

(P2) Write all 6 elements of  $S_3$  as products of disjoint cycles.

(P3) Write each element of  $S_3$  as a product of 2-cycles. Note: for 4 of the 6 elements, your answer should be identical to part (b)!