

**Spring 2019, Math 596: Preliminary Problem Set 7**  
**Due: Thursday, March 14th, 2019**  
**Polytopes and Numerical Semigroups**

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

(P1) Find all factorizations of  $70 \in S = \langle 5, 7 \rangle$ .

(P2) Write down *all* relations  $p_i \preceq p_j$  for the following poset  $\Pi = \{p_1, p_2, p_3, p_4, p_5\}$ .

Hint: don't forget the reflexive ones!

