

**Spring 2020, Math 621: Preliminary Problem Set 6**  
**Due: Thursday, March 5th, 2020**  
**Polytopes and Polyhedra**

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

(P1) Draw the convex hull  $P$  of

$$\{(0, 0), (1, 2), (1, 3), (2, 1), (3, 1), (3, 3)\}$$

in  $\mathbb{R}^2$ . How many vertices does this polytope have?

(P2) Find the face lattice of the polytope  $P$  in the previous problem.