

**MATH 113: DISCRETE STRUCTURES  
HOMEWORK FOR WEDNESDAY WEEK 4**

*Problem 1.* 2.1.8 from *DM:EB*

*Problem 2.* Suppose that  $n$  lines in the plane are drawn in such a fashion that no two are parallel and no three intersect in a common point. Prove that the plane is divided into precisely  $\frac{n(n+1)}{2} + 1$  regions by the lines.