

## Homework 1

Due Monday, Feb 20.

1. Suppose that  $\mathbb{D}$  is a collection satisfying the criteria in Proposition 1.3.4. Show that if the graphs of functions  $f$  and  $g$  are in  $\mathbb{D}_{n+1}$ , then the graph of  $\langle f, g \rangle$  is also in  $\mathbb{D}_{n+2}$ . (You may use any of the facts we proved in lecture.)
2. Exercise 1.4.11, all parts (page 30)
3. Exercise 2.5.2 (page 60)