Math 8253, Fall 2015
Homework 3
Due in-class on **Monday, October 5**

The following exercises are drawn from Vakil's *Foundations of algebraic geometry* (Sept. 18, 2015 version). This is available at:

`http://math.stanford.edu/~vakil/216blog/FOAGsep1815public.pdf`

One reason that I am drawing exercises from here is to suggest very strongly that you read some of it (you may need to do a little in order to translate some of the terminology), and think about some of the exercises that you are *not* assigned. However, printing out the entire document is not recommended. If you are going to print it, please print just sections as you actively use them.

(In some of these exercises, the mathematical term "natural" appears. We have not discussed this yet, and so you can view this word as descriptive rather than indicating that you should prove something.)

1. Exercise 1.3.C.

2. Exercise 1.3.F.

3. Exercise 1.3.H.

4. Exercise 1.3.K.

5. Exercise 1.3.Q.

6. Do Exercise 1.3.S but do not hand it in.