## MATH 233: HOMEWORK 2

## DUE TUESDAY APRIL 1

## Problems

- (1) From Hartshorne: III 5.1-3, 5.5-6, and III 8.1-4
- (2) Show that if  $f: X \to Y$  is a morphism of separated schemes, with  $U \subset X$  and  $V \subset Y$  affine, then  $f^{-1}(V) \cap U$  is affine.