Report problems[1]

Problem 1. *Due*: Tuesday, April 16, 2019, in Science Building 1, Room 105.

Let A be a ring and let $f \in A$ be an element. Show that the continuous map
$$\mathrm{Spec}(A_f) \to \mathrm{Spec}(A)$$
induced by the localization map $A \to A_f$ is a homeomorphism onto
$$D(f) \subset \mathrm{Spec}(A)$$
with the subspace topology.

(You can find the proof in the Stacks Project, but you must write it out by yourself.)