Missing from last HW

Exercise 1. Suppose $\phi : \mathcal{F} \to \mathcal{G}$ is a morphism of sheaves of sets on a topological space X. Show that the following are equivalent:

(a) ϕ is an epimorphism in the category of sheaves.

(b) ϕ is surjective on the level of stalks: $\phi_p : \mathcal{F}_p \to \mathcal{G}_p$ is surjective for $p \in X$.