Homework: higher derived image of sheaves and part of flat morphism

1. (1)Chapter 2, Ex4.3 in Hartshorne.
(2)Let $X \to T$ be a morphism of separated noetherian schemes, then any pairs of affine open sets $(U \subset X, V \subset Y)$, $f^{-1}(V) \cap U$ is affine.

2. X is a noetherian scheme, $\mathcal{F}$ is a coherent sheaf in X, then $\mathcal{F}$ is locally free iff $\mathcal{F}_x$ is a free $\mathcal{O}_{X,x}$ module for any $x \in X$.