(1) For a vector bundle V on a scheme X, smooth over a scheme S, establish an equivalence between $Th(V)$ and $Th(V^*)$ in $\mathcal{S}\mathrm{pc}(S)$, where V^* denotes the dual vector bundle. [*Hint*: Let $H \subset V \times V^*$ denote the hyperplane $\varphi(x) = 1$ and show that the two projections $H \to V \setminus 0, H \to V^* \setminus 0$ are both equivalences.]

(2) Let (X, Z) be a smooth closed pairs over S. Show that $(B_Z X, p^{-1}Z) \to (X, Z)$ is weakly excisive, where $p : B_Z X \to X$ is the blowup of X in Z.

(3) Let $z = \mathrm{Spec}(k)$ denote the origin of $\mathbb{A}^n_k$. Construct an isomorphism of k-schemes $D_z\mathbb{A}^n \simeq \mathbb{A}^{n+1}$. Generalize to $D_Z\mathbb{A}^n_Z$, for $Z \in \mathrm{Sm}_S$.

(4) Let $(X'', Z'') \xrightarrow{g} (X', Z') \xrightarrow{f} (X, Z)$ be morphisms of smooth closed pairs. Show that:
   (a) If g is weakly excisive, then f is weakly excisive if and only if $f \circ g$ is weakly excisive.
   (b) If $f \circ g$ and f are weakly excisive, and $Z' \to Z$ is a motivic equivalence, then g is weakly excisive.
   (c) If $U_\bullet \to X$ is a Nisnevich cover and $f_{U_{i_1} \times_X \cdots \times_X U_{i_k}}$ is weakly excisive for all multiindices, then f is weakly excisive.