Show that if U is open in X and A is closed in X then $U \setminus A$ is open in X and $A \setminus U$ is closed in X.

$U \setminus A = U \cap A^c \rightarrow$ open (on the topology)

$A \setminus U = A \cap U^c$

$(A \cap U^c)^c = A^c \cup U \rightarrow$ open