Name: _____ Score (Out of 5 points):

1. (2 points) $X = \{a, b, c\}$, $\mathcal{T} = \Big\{\varnothing, \{c\}, \{b, c\}, \{a, b, c\}\Big\}$, $A = \{a, c\}$.

$\text{Int}(A) =$ _____ $\overline{A} =$ _____ $\partial A =$ _____ $A' =$ _____

2. (3 points) Let A be a subset of a topological space X. Prove that $X \setminus \overline{A} = \text{Int}(X \setminus A)$.