Homework 6: Boundary of a Set, Subspace Topology

*Assignments should be **stapled** and written clearly and legibly.*

1. §2.3, #2.24(f), 2.26(a)(e).
2. §3.1, #3.7, 3.11(b). Note that both problems require complete proofs.
3. Let X be a topological space and $A \subseteq X$. Prove that $\partial A = \emptyset$ if and only if A is both open and closed.
4. True or False: If U is open, then $U = \text{Int}(\overline{U})$. Answer True or False, then justify your answer.