## Assignment \# 1 Sample

1. Prove or disprove the following:

For non-empty sets $A$ and $B,(A \cup B)=(A \cap B)$ if and only if $A=B$
Part 1) Prove if $A=B$, then $(A U B)=(A \cap B)$

Part 2) Prove if $(A U B)=(A \cap B)$, then $A=B$

