

1. A and B are sets. Prove $A \subseteq B$.

2. A is a set. Prove $a \in A$.

3. Suppose A , B , and C are sets. Prove that if $B \subseteq C$, then $A \times B \subseteq A \times C$.

4. If A , B , and C are sets, then $(A \cap B) - C = (A - C) \cap (B - C)$.