Name:

[5]

1. Let T, A, and B be subsets of some universal set U.
   Prove that if $T \subseteq A$, then $T \times B \subseteq A \times B$.

[5]

2. For each natural number n, let $A_n = \{n, n+1, n+2, n+3\}$. Determine the elements of
   the set $\displaystyle\bigcup_{i=2}^{4} A_i$.

Total: 10 points