

Name: _____

Pid: _____

1. (10 points) Construct a bijection from $[n] \times \{0, 1\}$ to $[2n]$, where n is some positive integer.

2. (10 points) Show that there is a bijection from $\{(A, B) : A, B \in 2^{[n]} \text{ and } A \cap B = \emptyset\}$ to $\{0, 1, 2\}^n$, where n is some positive integer.