i tollio.

Directions: Show all work. No credit for answers without work.

1. [4 points] Give a 4-state NFA for the language $\{w \mid w \text{ ends with } 000\}$.

2. [3 points] Let $\Sigma = \{0, 1\}$. Give a DFA for the language $\{w \mid w = x1010y \text{ for some strings } x \text{ and } y\}$. (Another way to describe this language is that it is the set of all words that contain 1010 as a substring.)

3. [3 points] Convert the following NFA to a DFA.

