A. Let $EQ_{DFA} = \{\langle A, B\rangle : A \text{ and } B \text{ are DFAs, and } L(A) = L(B)\}$. Describe a Turing machine that decides EQ_{DFA} by testing A and B on all strings up to a certain length. Your answer should make clear exactly which length works, and how your Turing machine computes that length from its input.

B. Problem 4.12.