1. The cartesian product of two DFAs is commonly used to construct a single DFA for the _____ of two regular languages.
   (3 points)

   A. complement

   ✓ B. intersection

   C. union

   D. symmetric difference

2. For which of the following regular languages would it be easier to build a DFA of its **complement** first? Assume Σ = {0,1}.
(3 points)

A. {w|w starts with a 0 and ends with a 0}.

B. {w|w has exactly two 1's}

✓ C. {w|w does not have 010 nor 110 as substrings}

D. {w|w has at least one 0}

3. Which of the following would be the appropriate operation to implement (via an NFA) if one want to recognize a repeating substring of any size? *(3 points)*

  A. union

  B. intersection

✓ C. star operation (*)

  D. complement