1. What Does This Program Do - Looping
   When the following program is run, what is the last element of array B that is modified?
   
   FOR J = 5 TO 1 STEP –1
   FOR K = 3 TO 10 STEP 2
   B(J,K) = J + K
   NEXT K
   NEXT J

2. Digital Electronics
   Write the Boolean expression that is the exact translation of the following circuit:

   ![Circuit Diagram]

3. Digital Electronics
   Find all ordered triplets (A,B,C) that make the following circuit TRUE.

   ![Circuit Diagram]

4. Graph Theory
   How many different paths of length 2 exist in the following directed graph?

   ![Graph Diagram]

5. Graph Theory
   How many cycles exist in the following directed graph?

   ![Graph Diagram]