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| **1. Graph Theory**    How many paths of length 2  are there in the directed graph  at the right? | **1.** |
| **2. Graph Theory**  How many cycles exist in  the directed graph at the  right? | **2.** |
| **3. Digital Electronics**    Simplify the Boolean  expression represented  by the digital circuit at  the right. | **3.** |
| **4. Digital Electronics**    Which ordered triple(s) make  the digital circuit at the  right FALSE? | **4.** |
| **5. Assembly Language**  What is the sum of the outputs of the following assembly program after it is  executed?  A DC 4213  B DC 16  TOP LOAD A  DIV B  STORE C  BE DOWN  LOAD C  MULT B  STORE E  LOAD A  SUB E  STORE F  PRINT F  LOAD C  STORE A  BU TOP  DOWN PRINT A  END | **5.** |