The problem below is to be done in groups of 3-4 students. The work is to be written up and turned in with all student names from the group on it.

1. (10 pts) Find an unrestricted grammar G s.t. \( L(G) = \{a^n b^n c^n | n > 0 \} \)
   I have started it but it is missing some rules. What are the missing rules?

   \[ G=(V,T,S,P) \]
   \[ V=\{S,A,B,D,E,X\} \]
   \[ T=\{a,b,c\} \]
   \[ P= \]

     1) \( S \rightarrow AX \)
     2) \( A \rightarrow aAbc \)
     3) \( A \rightarrow aBbc \)
     4) \( Bb \rightarrow bB \)
     5) \( Bc \rightarrow D \)
     6) \( Dc \rightarrow cD \)
     7) \( Db \rightarrow bD \)
     8) \( DX \rightarrow EXc \)