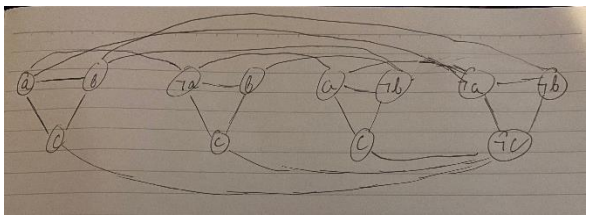
1.
    a. 8
    b. (x1 ∨ x2 ∨ x3) ∧
       (¬x1 ∨ x2 ∨ x3) ∧
       (x1 ∨ ¬x2 ∨ x3) ∧
       (x1 ∨ x2 ∨ ¬x3) ∧
       (¬x1 ∨ ¬x2 ∨ x3) ∧
       (¬x1 ∨ x2 ∨ ¬x3) ∧
       (x1 ∨ ¬x2 ∨ ¬x3) ∧
       (¬x1 ∨ ¬x2 ∨ ¬x3)
2.
    a. See cs412_np_3satcheck.py
3.
    a. 
    b. Determine whether there exist a set of clauses such that no two clauses share a common variable assignment
    c. [A1, B2, C3]
4.
    a. See cs412_np_independent_set.py
5.
    a.