Exercise – GSAT

- Boolean variables:
  - A, B, C
- Constraints:
  1) $A \leftrightarrow B$
  2) $B \leftrightarrow C$
  3) $A \leftrightarrow C$
  4) A, B and C must not be true simultaneously

Q1: How to apply GSAT to this problem?

Step 1: turn problem to a SAT problem first:

(a) $A \vee \neg B$

(b) $\neg A \vee B$

(c) $B \vee \neg C$

(d) $\neg B \vee C$

(e) $\neg A \vee C$

(f) $A \vee \neg C$

(g) $\neg A \vee \neg B \vee \neg C$

Now Apply GSAT

Q2: How to choose between these two models for Hill Climbing in general?