NP-Complete (NPC) if an NPC problem is in P then all NP problems are in P. (P = NP)

\[ L \in \text{NPC} \]
Show N is NPC by showing
reduce L to N (in poly. time)
Satisfiability
Boolean formula

eq. \( x_1 \land x_2 \lor (x_1 \land \overline{x_3}) \)

SAT = \( \{ \langle \phi \rangle | \phi \text{ is a satisfiable Boolean formula} \} \)

SAT \in P \iff P = NP
http://cs.gettysburg.edu/~cpresser/cs301/examples/SubsetsEtAl/src/