3 folToCNf2.py

Steps to conver FOL to CNF

1 Eliminate implication and biimplication

$a \Rightarrow \equiv \neg a \lor b$

$a \Leftrightarrow b \equiv (a \Rightarrow b) \land (b \Rightarrow a)$

2 Standardize the variables (optional)

3 Move negation inwards

$\neg (\forall_x P(x)) \equiv \exists x \neg P(x)$

$\neg (\exists x P(x)) \equiv \forall x \neg P(x)$

$\neg (a \lor b) \equiv \neg a \land \neg b$

$\neg (a \land b) \equiv \neg a \lor \neg b$

$\neg (\neg a) \equiv a$

4 Skolemization

Replace existential qvantifier by Skolem Constant

$\exists x Rich(x) \longrightarrow Rich(A)$

General Case   specific Case

5 Drop Universal qvantifier

$F_g - \exists x [Person(x) \land Deaf(x)]$

$Person(A) \land Deaf(A)$