

CS4600 - Introduction to Intelligent Systems

Homework 4 - Sample Solution

English sentences	CNF
Joe is a cat.	$Cat(Joe)$
No cat has a dog friend	$\sim Cat(x) \vee \sim Dog(y) \vee \sim Friend(x,y)$
Sam is Joe's friend	$Friend(Joe, Sam)$

Resolution works by adding the negated query to the knowledge base and resolving to false. Since we want to prove $\sim Dog(Sam)$, we add $Dog(Sam)$ to the knowledge base and then:

