

# CS4600 - Introduction to Intelligent Systems

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## Homework 4 - Reasoning with Logic

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Translate the following English sentences to First-Order Logic (FOL) using the following predicates:  $Cat(x)$ ,  $Dog(x)$ , and  $IsFriendOf(x,y)$ . Convert the knowledgebase to CNF and then use resolution to show that Sam is not a dog.

- Joe is a cat.
- No cat has a dog friend.
- Sam is Joe's friend.