Propositional and Predicate Logic

Lab exercises

Translating from English to FOL

- Arity:
  - Nouns and adjectives ~> 1-ary
  - Verbs ~> 2/3-ary
- Quantifiers
  - A, some ~> Existential
  - Every, All ~> Universal

Translating from English to FOL

- "Or":
  - Inclusive or exclusive?

- Do you need to specify that two things are not the same?
  - $\forall x \forall y(\ldots \wedge x \neq y)$

Validity, Contradiction, Contingency

- Valid / Tautologous = true in all possible models
- Contradiction = false in all possible models
- Contingent = true in at least one model

Have fun!