Translation

Translation

- All English sentences that express propositions can be formatted in categorical language.
- A proper translation selects the correct:
  - Quantifier (All, No, Some)
  - Subject term
  - Copula (are, are not)
  - Predicate term

Missing Plural Nouns

- Often, English predicates are adjectives instead of nouns.
    - E.g. 'All smurfs are blue.'
- These are easy to handle. Simply add an appropriate plural noun to the adjective.
    - E.g. 'All smurfs are blue **creatures**.'
    - The word 'things' is always an option in these cases.

Verbs other than present indicative

- Brontosauruses never existed (non-present tense)
  - No brontosauruses are things that ever existed
- "It's hard to be a decent human being" (infinitive)
  - All decent human beings are things that it is hard to be
- I would be happy if I were you (subjunctive)
  - All people who are me are people who would be happy if they were you.

Unique terms

- Proper nouns:
  - The Eiffel Tower is pretty
  - All things that are the Eiffel Tower are pretty things
- Definite descriptions:
  - The president is a basketball fan
  - All people who are the president right now are basketball fans

Adverbs

- Phrases like these have to be translated into both terms.
- Whenever you make ends meet, someone moves the ends.
  - All times when you make ends meet are times when someone moves the ends
- Whoever discovered bacon was a genius
  - All people who discovered bacon are people who were geniuses
- You're entitled to whatever you want
  - All things that you want are things that you are entitled to

Denying

- There is a difference between asserting an E claim and denying an A claim.
- Ballplayers don't take steroids
  - No ballplayers are people who take steroids
- It's not true that all ballplayers take steroids
  - Some ballplayers are not people who take steroids
- Denying an A results in an O, denying an E result in an I and vice versa.

Implied quantification

- Hippos are noble beasts
  - All hippos are noble beasts
- The hippo is a noble beast
  - All hippos are noble beasts
- A hippo is charging
  - Some hippos are things that are charging
- That hippo is charging
  - All things that are that hippo are things that are charging

Conditionals

- All conditionals (if…then… statements) are universal claims. Look for any negations.
- If you build it, they will come
    - All times when you build it are times when they will come.
- If you got that at Starbucks, its not cheap
    - No things that you get at Starbucks are cheap things.

Only the Only

- The word 'only' indicates the predicate of an A claim.
    - Only seniors may take this course
    - All those who may take this course are seniors
- The phrase 'the only' indicates the subject of an A claim.
    - The only place you can get a Big Mac is McDonald's.
    - All places you can get a Big Mac are places that are McDonald's

Exceptive Propositions

- The Matrix movies sucked, except for the first one
  - All Matrix movies that were the first Matrix movie are movies that did not suck. -AND-
  - All Matrix movies that were not the first Matrix movie are movies that sucked.
- Nothing but the best will do
  - All things that the best are things that will do
  - No things that are not the best are things that will do

Partial Inclusion/Exclusion

- Sauerkraut, which some people like, is not for everybody.
  - Some people like sauerkraut –AND-
  - Some people are not people who like sauerkraut

Necessary and sufficient conditions

- A mother is a female parent
  - All mothers are female parents –AND-
  - All female parents are mothers
- Bachelors are unmarried men
  - All bachelors are unmarried men –AND-
  - All unmarried men are bachelors

Compound Terms

- All citizens and non-felons may vote
    - All citizens are those who may vote –AND- All non-felons are those who may vote (INCORRECT)
    - All citizens and non-felons are those who may vote (CORRECT)