

## Second Test Review

### Translation:

1. Be able to translate simple categorical statements involving *every, some, none*.
2. Be able to translate sentences containing two determiners (like *every student likes a teacher* ).
3. Be able to translate categorical statements containing terms with attributive adjectives, relative clauses and prepositional phrases.
4. Be able to distinguish between *all & only*, and between *every* and *any*.
5. Recognize translations of: *at least two, at least three, at most one, at most two* .

6. Be able to translate a “donkey sentence”: a sentence containing *every/all*, or an *if...then...* conditional, with an anaphoric pronoun in the consequent that is linked with an existential determiner (*a* or *some*) in the antecedent.
7. Be able to recognize which sentences are equivalent by the “rights of passage”.
8. Be able to translate sentences containing *only* plus a proper name, and sentences containing superlatives.

Interpretations:

Be able to compute the truth value of formulas, given an interpretation (model): consisting of a domain, assignment of sets of n-tuples to n-ary predicates, and of elements of the domain to constants.

Proofs in predicate logic:

1. Whenever the “Show” line has a universal quantifier as main connective, do a **universal proof**. Always use a **new constant**.

2. Recognize that Existential Exploitation requires the use of a **new constant**.

3. Be able to apply both Existential Introduction and Identity Exploitation, recognizing that in each case one can replace **some or all** of the occurrences of a term.

4. **Do existential exploitations as soon as possible**. After each EE, check every available line with a main universal quantifier and decide whether to do a UE with the new constant.

5. When doing Universal Exploitation and Identity Exploitations, try to *match patterns*, triggering sentential logic rules. Remember – you can instantiate or substitute using complex terms, not just constants.