Philosophy 240: Symbolic Logic

Russell Marcus
Hamilton College
Fall 2010

Class 38: December 1
Translation Using Identity

Please Join the Marcus Family for Our 2010...

Hanukkah Party!

Sunday, December 5
4 pm until ???

Our home
23 Fountain Street, in the village of Clinton

RSVP
By Wednesday, December 1
via email to rmarcus1@hamilton.edu

Directions from the College
Go straight down the hill on College Road.
When you reach the village green, don't curve left with 12B.
Instead, continue straight to the end of the road.
Make a right onto Fountain Street.
We're halfway up the first block on the left, #23.

Papers are Due on Friday.

Exactly

1. There are exactly two chipmunks in the yard.
2. There are at least two applicants.
3. There are at most two applicants.
4. There are exactly two applicants.
5. Two is the only even prime number.
6. There is exactly one even prime number.
7. There are exactly three aardvarks on the log.

Definite Descriptions

1. The king of America is bald.
2. The king of America is not bald.
3. Devendra Banhart is not bald.

1 entails three simpler expressions:

   A. There is a king of America.
   B. There is only one king of America.
   C. That thing is bald.

4. The country called a sub-continent is India.

   A. There is a country called a sub-continent.
   B. There is only one such country.
   C. That country is identical with India.

5. The author of Waverly was a genius.

Some Examples

1. Everything is identical with itself.
2. Nothing is distinct from itself.
3. Everything is identical with something.
4. John loves Mary.
5. John only loves Mary.
6. Only John loves Mary.
7. Everyone loves Mary.
8. Everyone except John loves Mary.
9. Everyone deems all Beatles' records except *Let It Be* to be classics.
10. Adriana is a bigger mouse than Rene. (Bxy: x is bigger than y)
11. Adriana is the biggest mouse.
12. Bill Gates is the geek with the most money.

More Exercises

1. All prime numbers are odd except the number two.
2. There is at least one mouse bigger than Rene.
3. There are at least two mice bigger than Rene.
4. There are at least three mice bigger than Rene.
5. Rene is the smallest mouse.
6. Syracuse is the nearest major city.
7. There are at least two odd prime numbers.
8. At most two persons invented the airplane.
9. There is exactly one dollar bill in my wallet. (Dx, Wx)
10. There are at least four students in the course. (Sx, Cx)
11. There are exactly three applicants.
12. The murderer was Colonel Mustard. (m, Mx)