

Logic Worksheet 3

Your name:	Mark (out of 5):
Logic class (A–F):	
Logic class tutor:	

Read §§14–16 of forallx:Cambridge, then complete the following exercises. Some exercises are marked with a ‘*’; techniques to answer these will be covered in the lecture on the day before the worksheet is due.

Self-marked exercises

Do the following practice exercises from forallx:Cambridge.

- §15 Part A Barbara, Celarent, Ferio and Darii, and Part C questions 2, 4, 6, 8
- * §16 Part B questions 4, 6, 8, 11, 14, 15 and Part D questions 2, 4, 6, 8, 10, 12

When you have completed these, carefully check your answers against the answers available at www.nottub.com/forallx.shtml. Correct your own work *in red*, for the marker to review. In the box below, write something that you now firmly understand, as a result of doing these exercises:

Understand:

And in this box, write something that you want to know more about:

Want more about:

Further exercises

A. Using the following symbolisation key:

domain: people

a : Ayn

m : Milton

Ixy : x influenced y

Dxy : x dislikes y

Lx : x is a libertarian

symbolise the following English sentences in FOL as best you can:

1. Since Ayn is a libertarian, Milton must not dislike her
2. Only if Ayn influenced him is Milton a libertarian
3. Unless Ayn is a libertarian whom Milton doesn't dislike, Milton is a libertarian
4. No libertarian dislikes either Ayn or Milton
5. Some libertarians – including some who are influenced by her – dislike Ayn
6. * Some libertarian influenced by Ayn dislikes exactly the same people as Milton dislikes
7. * Nobody dislikes anybody who dislikes every libertarian
8. * Milton dislikes anyone who is neither a libertarian nor influenced by one.

NB: I will not have explained to you how to handle two-place predicates until the lecture on Thursday. So, perhaps all these questions should be starred. However: you should take a look at questions 1–5 *before* the lecture on Thursday; you may find that you are able to do them.