Philosophy 240: Symbolic Logic Fall 2008

Mondays, Wednesdays, Fridays: 9am - 9:50am

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Homework Handout 1: Translating from Propositional Logic

Instructions: Use the given interpretations to translate the following sentences of propositional logic into natural English sentences.

- A: "Emily is an aardvark"
 B: "Emily eats ants"
 C: "Emily plays in the sun"
 X: "Carolyn is an aardvark"
 Y: "Carolyn eats ants"
 Z: "Carolyn plays in the shade"
 1. B ~Y
 2. ~C ∨ Z
- 3. ~X ⊃ Z
- 4. $B \equiv Y$
- 5. ~(A ~X)
- 6. $(\mathbf{A} \bullet \mathbf{Y}) \lor (\sim \mathbf{X} \bullet \mathbf{B})$

7. $(\mathbf{Y} \supset \mathbf{B}) \bullet \sim (\mathbf{B} \supset \sim \mathbf{Z})$

8. $[(\ X \lor Z) \supset (\ C \lor B)] \bullet [(\ X \bullet A) \supset (\ Y \bullet Z)]$