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 ≡ Y

5. ~(A • ~X)

6. (A • Y) ∨ (~X • B)

7. (Y ⊃ B) • ~(B ⊃ ~Z)

8. [(~X ∨ Z) ⊃ (~C ∨ B)] • [(~X • A) ⊃ (~Y • Z)]