Theory of Meaning Assignment #3

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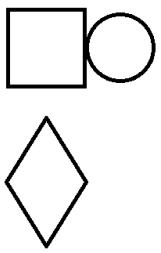
1 Exercise H

1. (i) **every**$_x${Px}Gx where P = is a pig and G = grunted
   (ii) **some**$_x${Mx}Gx where M = met Mary and G = is a gardener
   (iii) **the**$_x${Bx}Lx where B = is a black horse and L = likes Mary
   (iv) **every**$_x${Mx}Kx where M = is a man and K = knows Susan
2. 1 **every**$_x$MxKx where M = is a man and K = knows some woman (or other)
   2 **some**$_x$WxKx where W = is a woman and K = knows every man

2 Exercise I

1. (1) INSTANTIATE, NO: **no**$_y${Gy & Py} Sy is true w.r.t. L *iff* there is no object o such that (Gy & Py) is true w.r.t. L+<y,o> and Sy is also true w.r.t. L+<y,o>
   (2) INSTANTIATE, AND: ... *iff* there is no object o such that Gy is true w.r.t. L+<y,o> and Py is true w.r.t. L+<y,o> and Sy is also true w.r.t. L+<y,o>
   (3) INSTANTIATE, ATOMIC-1: ... *iff* there is no object o such that L+<y,o>(y) $\in$ L+<y,o>(G) and L+<y,o>(y) $\in$ L+<y,o>(P) and also L+<y,o>(y) $\in$ L+<y,o>(S)
   (4) REPLACE, LEXICON: ... *iff* there is no object o such that o is grey and o is a pig and also o sings
   (5) SET THEORY: *iff* nothing is a grey pig that sings
2. 
3. **ex1**$_u\{\phi\}\psi$ is true w.r.t. M *iff* there is exactly one object o such that ϕ is true w.r.t. M+<u,o>, and ψ is also true w.r.t. M+<u,o>.
4. (a) **ex1**$_x${Tx} **every**$_y${Cy}T(x,y)
   (b) **every**$_x${Cx} **ex1**$_y${Ty}T(x,y)