RYERSON UNIVERSITY
MTH 714 LAB#12
DAY: NOVEMBER 27, 2008

1. Given the logic program

$$\begin{aligned} P(x,z) &\leftarrow Q(x,y), P(y,z) \\ P(u,u) & \\ Q(a,b) & \end{aligned}$$

with the computation rule in which we first use the leftmost literal for resolution, what will be the output for the goal $\leftarrow P(v,b)$?

2. Is the goal $\leftarrow p(a,c)$ a logical consequence of the program

$$\begin{aligned} p(a,b) & \\ p(c,b) & \\ p(x,y) &\leftarrow p(x,z), p(z,y) \\ p(x,y) &\leftarrow p(y,x)? \end{aligned}$$

3. Describe all computations that are possible under the logic program

$$\begin{aligned} P(a,b) & \\ P(x,y) &\leftarrow P(y,x) \end{aligned}$$

with the given goal clause $\leftarrow P(b,z)$.