CSE 535 – Topics in Programming Languages

Assignment Four
Due 10/24/2

Let P be the following Prolog program.

```
edge(a,b).
edge(a,c).
edge(a,d).
edge(b,d).
edge(c,d).
edge(d,e).
path(N1,N2) :- edge(N1,N2).
path(N1,N2) :- edge(N1,N3), path(N3,N2).
```

1. Draw a refutation of P ∪ {←path(a,e)} using alternative formulation of LD resolution. Draw the SLD tree for P ∪ {←path(a,X)} using Prolog's selection rule.Repeat 1 and 2 by replacing P with the following program.

```
edge(a,b).
edge(b,c).
edge(c,a).
edge(d,e).

path(N1,N2) :- edge(N1,N2).
path(N1,N2)                   :-        edge(N1,N3),        path(N3,N2).
```