*Finding the 1st element of the list:*

first([H|\_], H).

*Query:*

first([1,2,5], H).

*Output:*

H=1

---------------------------------------------------------------

*Finding the last element of the list:*

last([X], X).

last([\_|T], X):-last(T, X).

*Query:*

last([a, b, c], X).

*Output:*

Tail=c

-------------------------------------------------------------------

*Appending lists:*

my\_apnd([], List, List).

my\_apnd([Head|List1], List2, [Head|List3]):-my\_apnd(List1, List2, List3).

*Query:*

my\_apnd([a, b], [c, d], List).

*Output:*

**List** = [a, b, c, d]

-----------------------------------------------------------------------

*Finding the length of the list:*

len([], 0).

len([\_|T], N):-len(T, M), N is M+1.

*Query:*

(len([3, 4, 5], L)).

*Output:*

L=3

----------------------------------------------------------------------

*Membership function:*

mem(Element, [Element|\_]).

mem(Element, [\_|List]):-mem(Element, List).

*Query:*

mem(a, [b, c, d, a]).

*Output:*

true