פרולוג 2

.1

```
1  reverse([],Acc,Acc).
2  reverse([X|Xs],Acc,Rest):-
3      reverse(Xs,[X|Acc],Rest).
4
5  my_reverse(L,Res):-
6      reverse(L,[],Res).
```

```
😊 my_reverse([1,2,3,4,5,6],L).

L = [6, 5, 4, 3, 2, 1]

?- my_reverse([1,2,3,4,5,6],L).
```

.2

```
1  my_prefix(X,L):-
2      append(X,_,L).
```

```
😊 my_prefix([4],[4,5,6]).

true

😊 my_prefix([5],[4,5,6]).

false
```

.3

```
1  my_member(X,L):-
2      append(_,B,L),
3      append(X,_,B).
```

```
⚙ my_member([5],[4,5,6]).

true

Next  10  100  1,000  Stop

⚙ my_member([6],[4,5,6]).

true

Next  10  100  1,000  Stop

😊 my_member([8],[4,5,6]).

false
```

.4

```
my_member_1(X,[X|_]).
my_member_1(X,[Y|Xs]):-X\=Y,my_member_1(X,Xs).
```

דרך נוספת ל4 -

```
my_member_2(X,L):-
    select(X,L,Xs),
    select(X,Xs,R).
```

.5

```
my_palindrom(L):-
    reverse(L,L).
```

```prolog
first(X,[X|_]).

my_sorted([_|[]]).
my_sorted(L):-
    first(X,L),delete(X,L,L1),first(Y,L1),X<Y,my_sorted(L1).
```

.

```prolog
my_insert(X,[],[X]).
my_insert(X,[D|L],[X,D|L]):-
    X=<D.
my_insert(X,[D|L],[D|Z]):-
    X>D,my_insert(X,L,Z).
```

my_insert(3,[1,2,4],Z).

Z = [1, 2, 3, 4]

Next | 10 | 100 | 1,000 | Stop