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Project 1

2/26/20

Version 1

$\text{unnest\_v1}(\text{List}, \text{FlatList}) \leftarrow \text{FlatList}$  is the unnested list of list List.

$\text{unnest\_v1}([], [])$ .

$\text{unnest\_v1}([X | \text{List}], \text{FlatList}) \leftarrow$

$\text{unnest\_v1}(X, X_s),$

$\text{unnest\_v1}(\text{List}, \text{ListNew}),$

$\text{append}(X_s, \text{ListNew}, \text{FlatList}).$

$\text{unnest\_v1}(\text{List}, [\text{List}])$ .

## Version 2

$\text{unnest\_v2}(\text{List}, \text{FlatList}) \leftarrow \text{FlatList}$  is  
the unnested list of List. ✓

$\text{unnest\_v2}(\text{List}, \text{FlatList}) \leftarrow \text{unnest\_v2}(\text{List}, [], \text{FlatList})$ .

$\text{unnest\_v2}([], \text{FlatList}, \text{FlatList})$ .

$\text{unnest\_v2}([x | \text{List}], \text{Acc}, \text{FlatList}) \leftarrow$

$\text{unnest\_v2}(\text{List}, \text{Acc}, \text{List2}),$   
 $\text{unnest\_v2}(x, \text{List2}, \text{FlatList})$ .

$\text{unnest\_v2}(x, \text{Acc}, [x | \text{Acc}]) \leftarrow$

$x \setminus = [],$

$x \setminus = [_ | _].$

## Equal Lists

`equals(List1, List2)` ← List1 and List2 contain the same elements ✓

`equals([], [])`.

`equals([x], [x])`. ← This is not really needed.

`equals(List1, List2)` ← `unnest_vl(List1, FlatList1),`  
`unnest_vl(List2, FlatList2),`  
*clever!* `sublist(FlatList1, FlatList2),`  
`sublist(FlatList2, FlatList1)`.