

Question 1 [8 Points]

what is the answer to each of the following queries

1.. ?- $A = [], B = [[5]|A],$

2. ?- $C = [25|[5]].$

3. ?- $[[[50], 25, 5]] = [H|Tail].$

4. ?- $X = [2,3,[4,5]], X = [2,3|Y].$

5. ?- $X = 5+7, X = 7+5.$

6. ?- $X = 5+7, Y = X-1.$

7. ?- $X = 2, Y = 3, Z \text{ is } X+Y, V = Z*22.$

8. ?- $X \text{ is } 5, Y = 4, X = X*Y.$

Question 4 [7 Points]

Write in prolog the following clauses:

a. $dlast(L, L1)$, that deletes the last element in L to return L1.

Example: ?- $dlast([1,3,22,56],R)$ should returns $R = [1, 3, 5, 22]$

b. `addodd(L,K)` where `L` is a list of integer numbers and `K` is the result of summing up all the odd integer numbers of `L`.

Example: `addeven([1,2,3,4,5,6,7,8], V)` returns `V = 16`