Quiz 1

Q1. [2 mark]

Show the variable instantiations (the values of X and Y) if the matching between the term in the first column and the term in the second column succeeds. Use "No" otherwise.

Term1	Term2	Instantiations		
[1 | [1]]	[X | Y]	X = 1	Y = [1]	
[[a], a, a]	[X , Y]	X =	Y =	No
f(X, Y)	f(a, g(X))	X = a	Y = g(a)	
f(X, Y)	f([a], [b | X])	X = [a]	Y = [b, a]	

Q2. [2 marks]

Read the following program and provide the answer to the query.

| Program | ```prog1([],[]).

prog1([H|T], [[H1]|T1]):- H1 is H * 2, prog1(T,T1).``` |
|---|---|
| Query | ```?- prog1([1, 2, 3], R).``` |
| Answer | ```R = [[2],[4],[6]]``` |