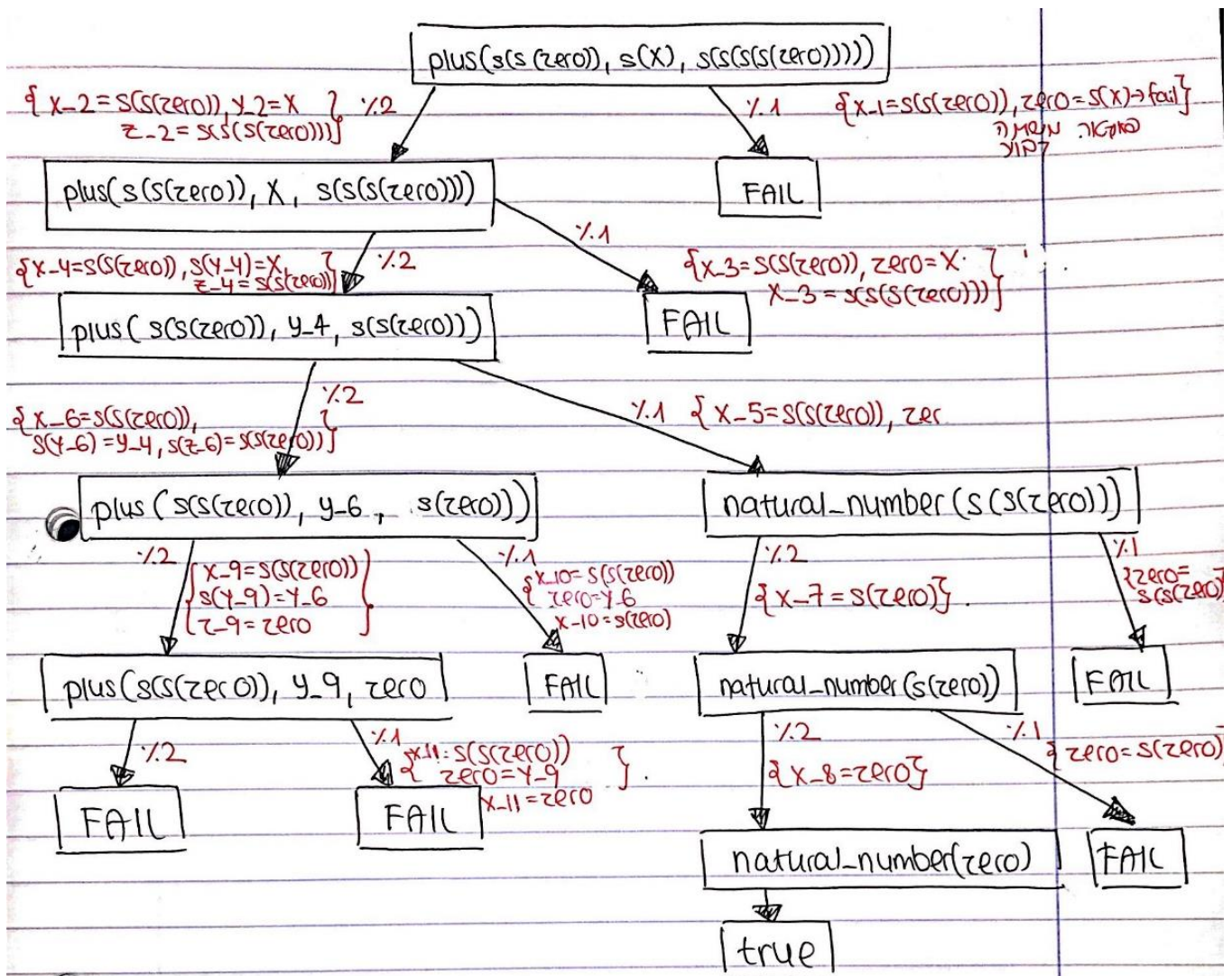


QUESTION 5: Answer-query algorithm

a. proof tree for the query: $?- \text{plus}(s(s(\text{zero})), s(X), s(s(s(s(\text{zero})))))) :$



$X = s(\text{zero})$

- There is only one answer because there is only one success branch. The answer is: $s(\text{zero})$.
- A success tree is a tree with at least one success path. As we can see there is one. Therefore, it is a success tree.
- The tree is finite. As seen above – **all** the paths in the tree are finite. They end with a leaf.