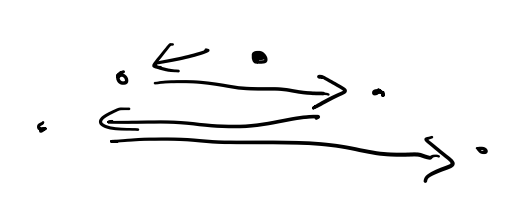
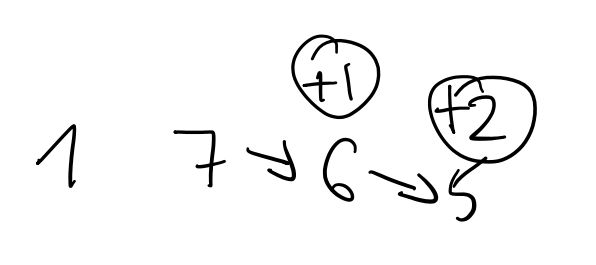
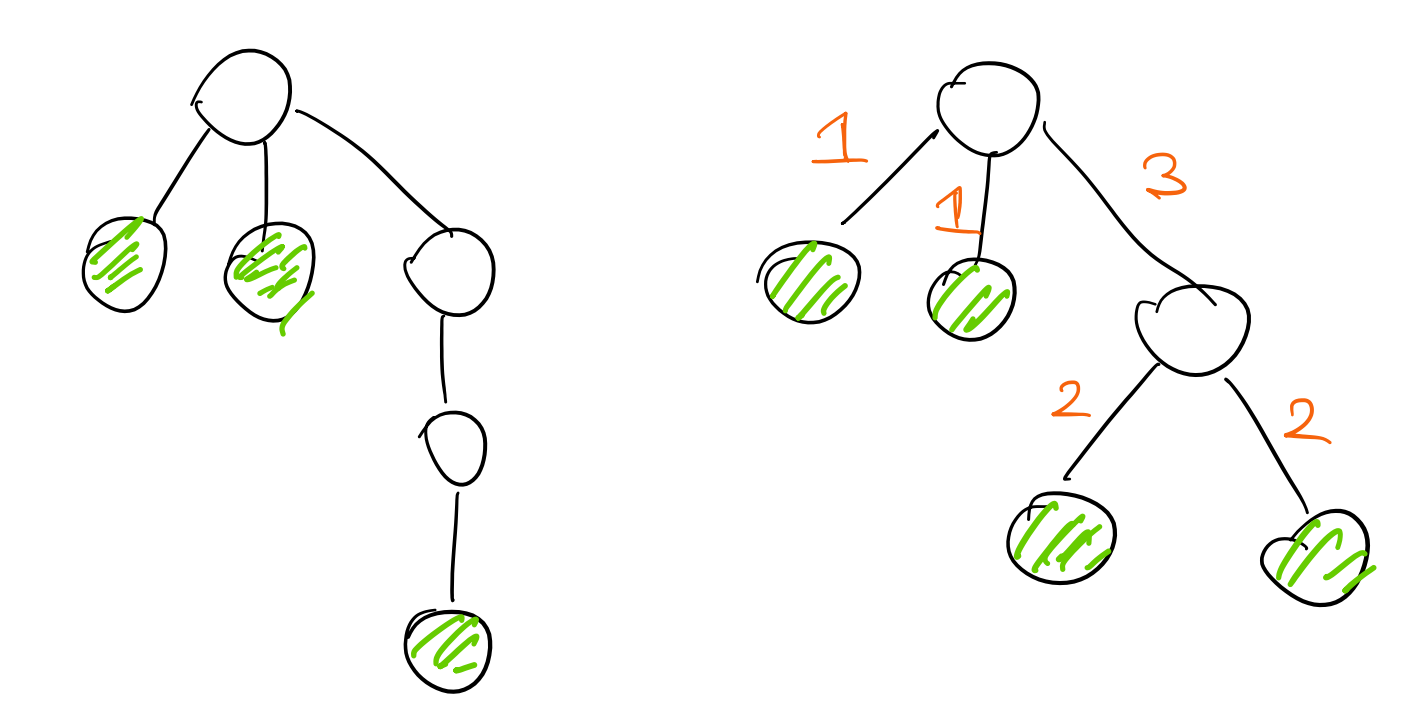
R-633

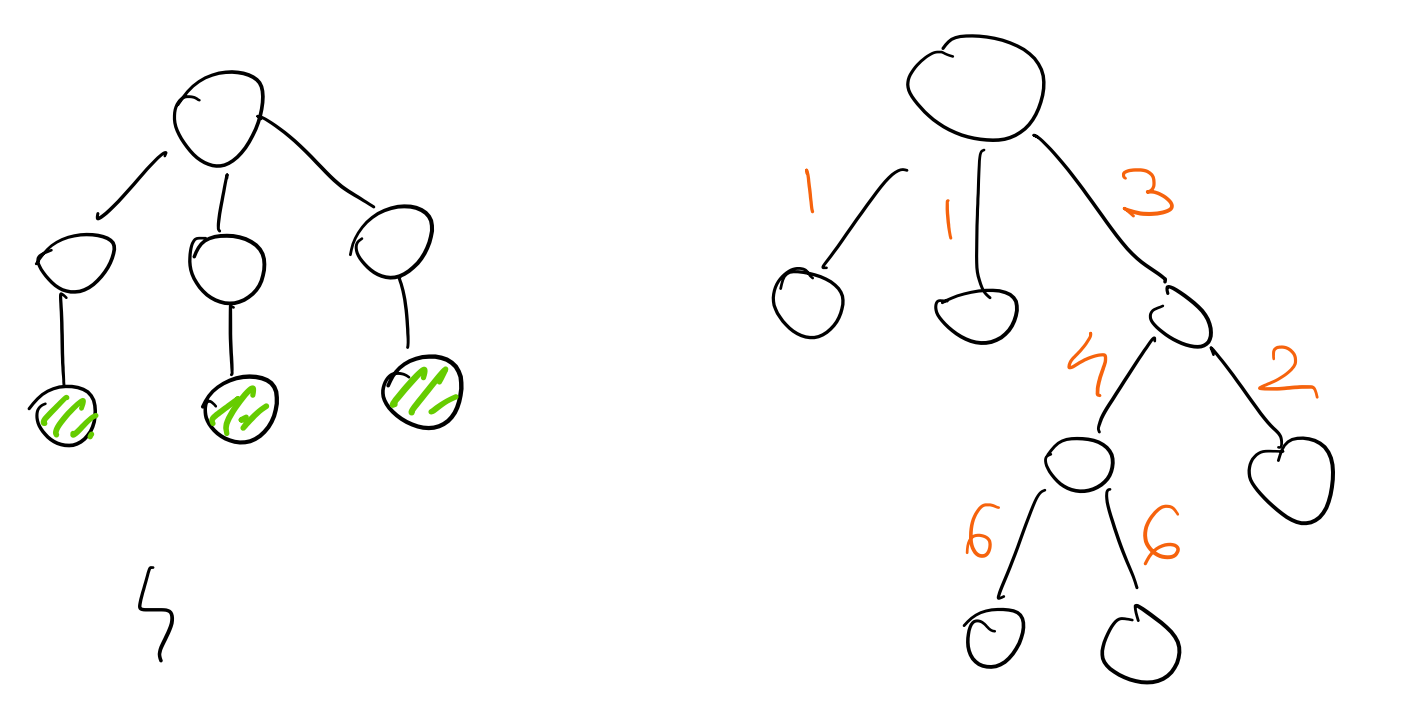
Friday, 25 December 2020 17:06



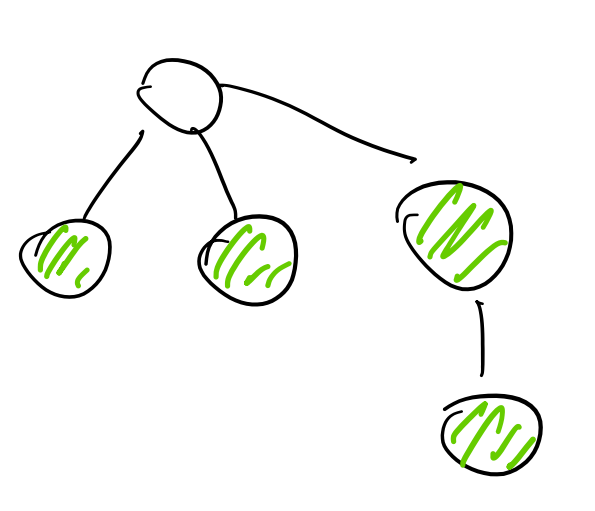




Path lengths: 2/4 1/3



4



2/3

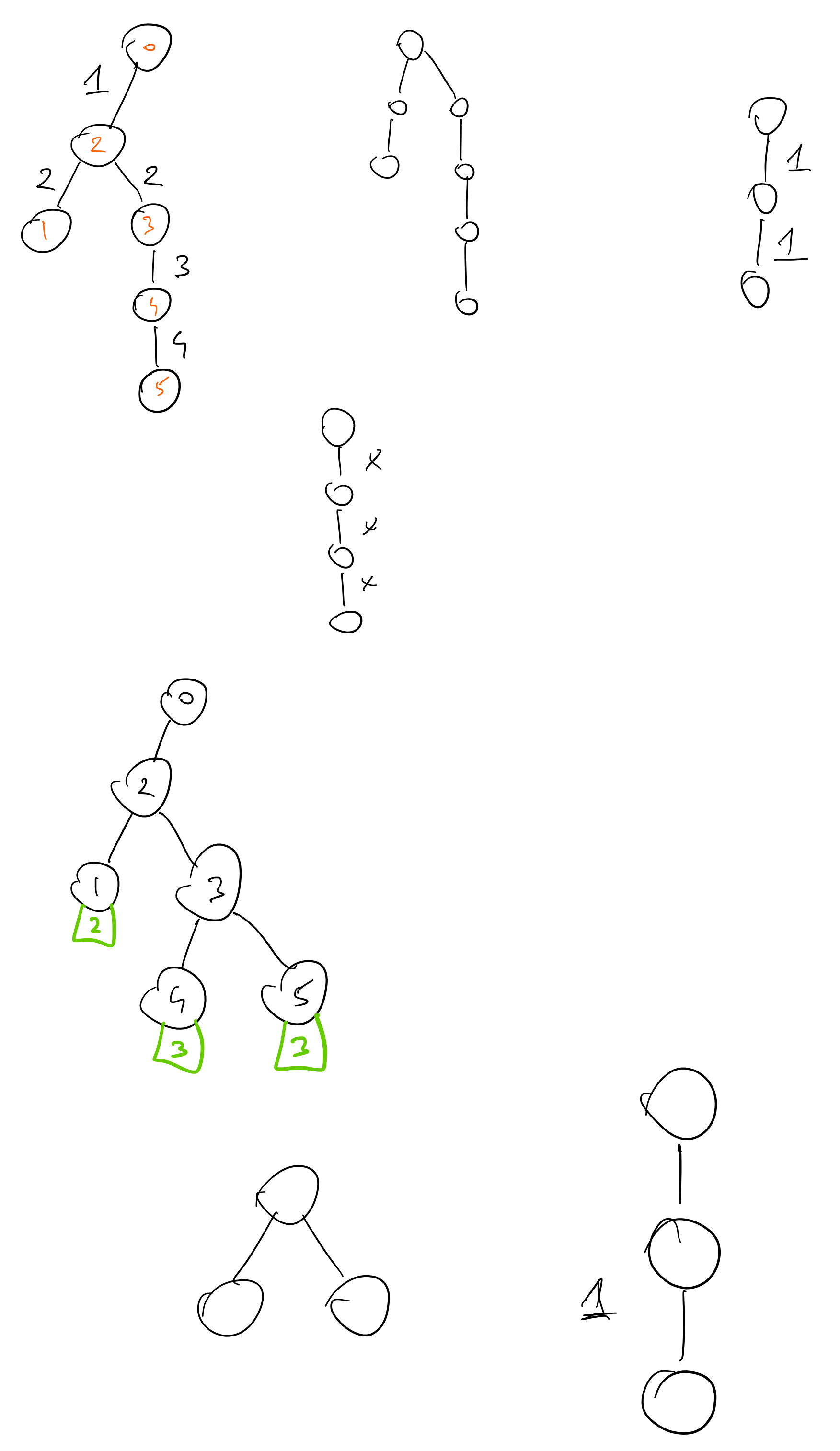
(Mini:) If all paths even: 1

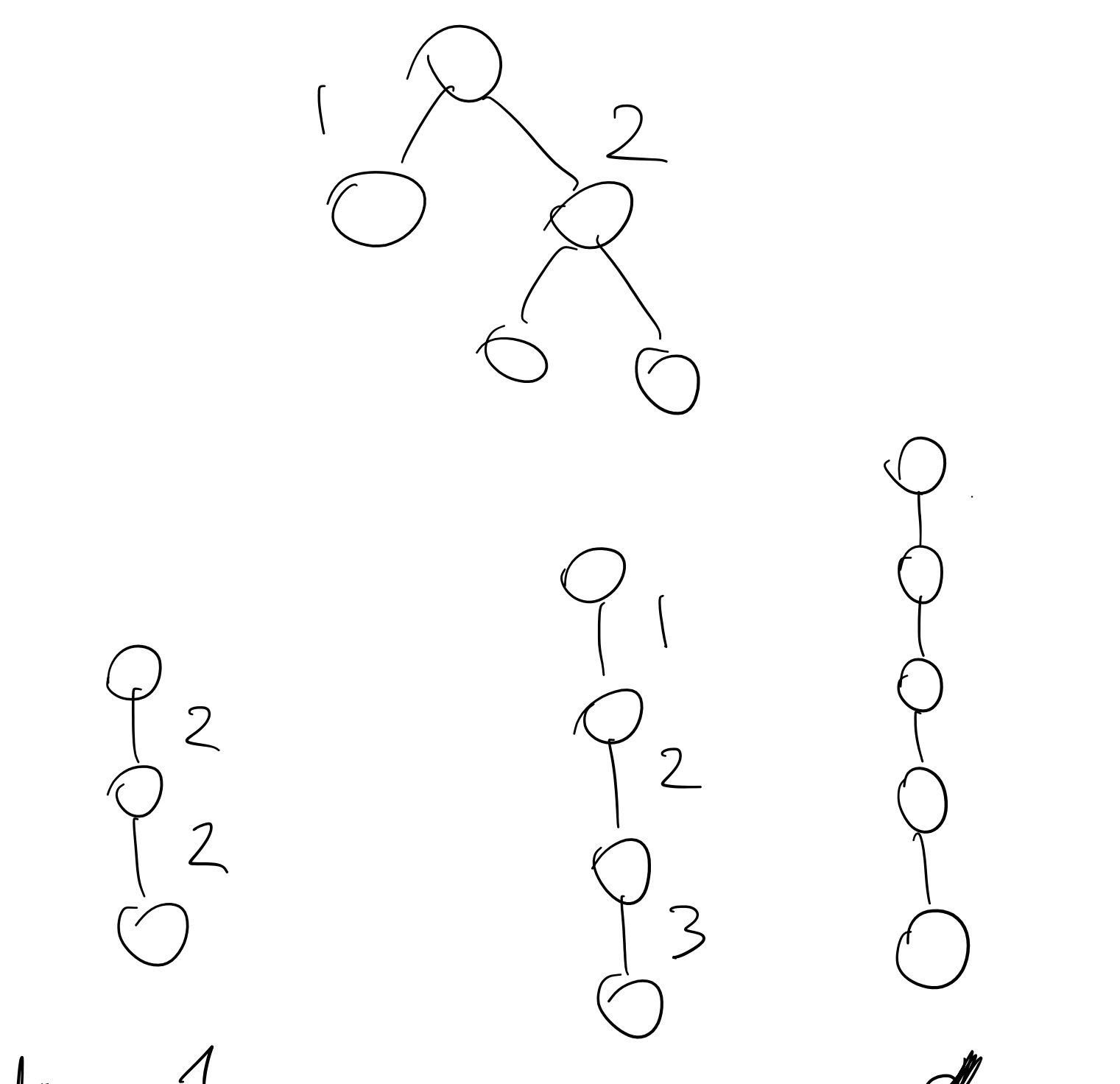
Count depths of leaves

Answer: $2n-1$ where n: number of different depths

unless all depths even/odd, then 1

(Max)



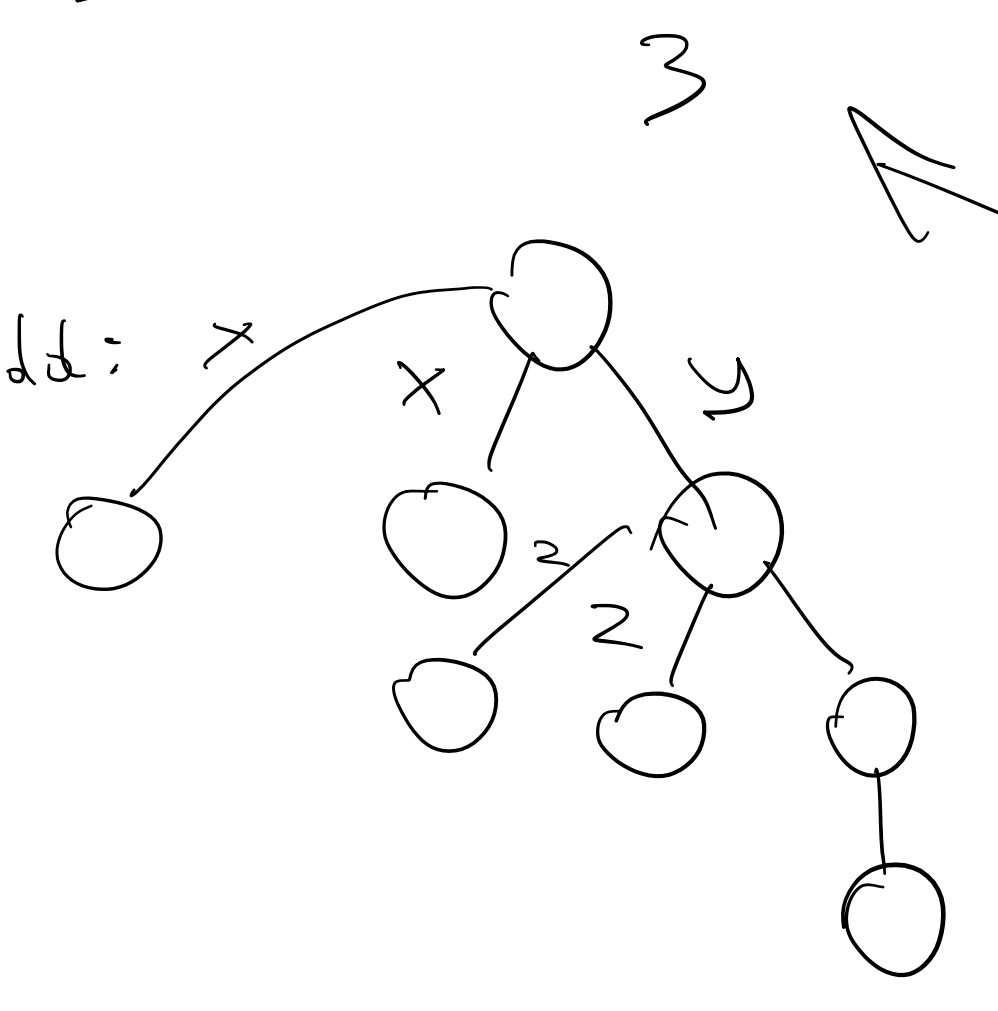


Result: 1

3

4

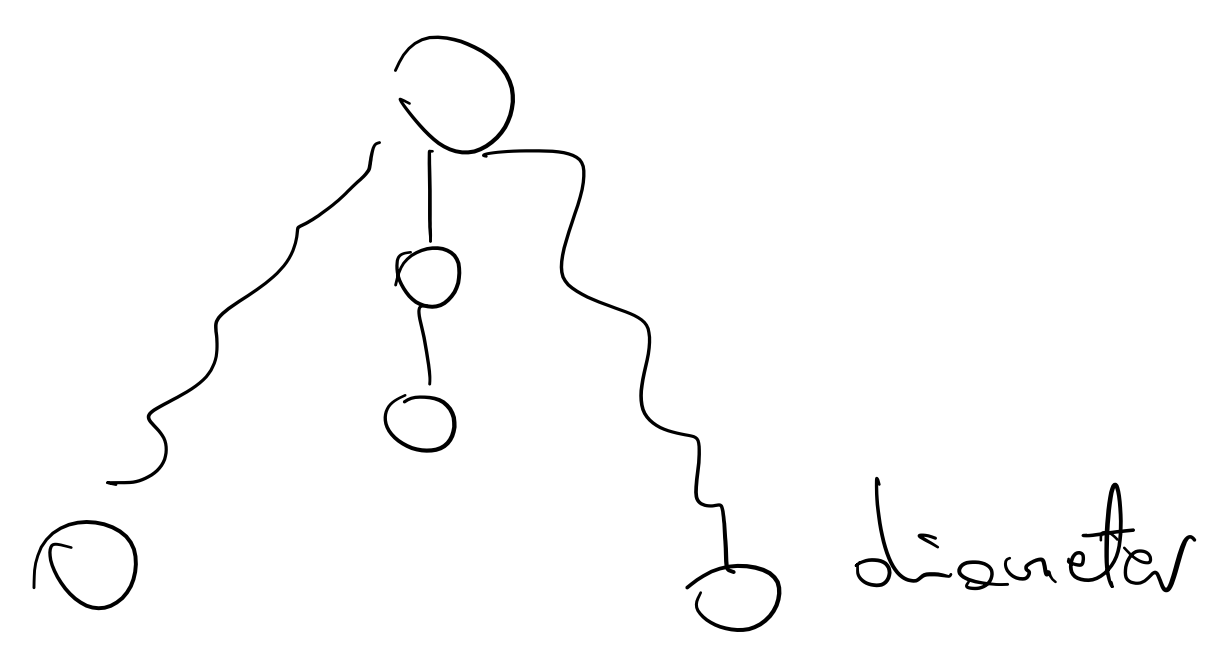
n odd:



01
10
11

001
010
101
110

diameter?



XOR of n numbers

max n different numbers

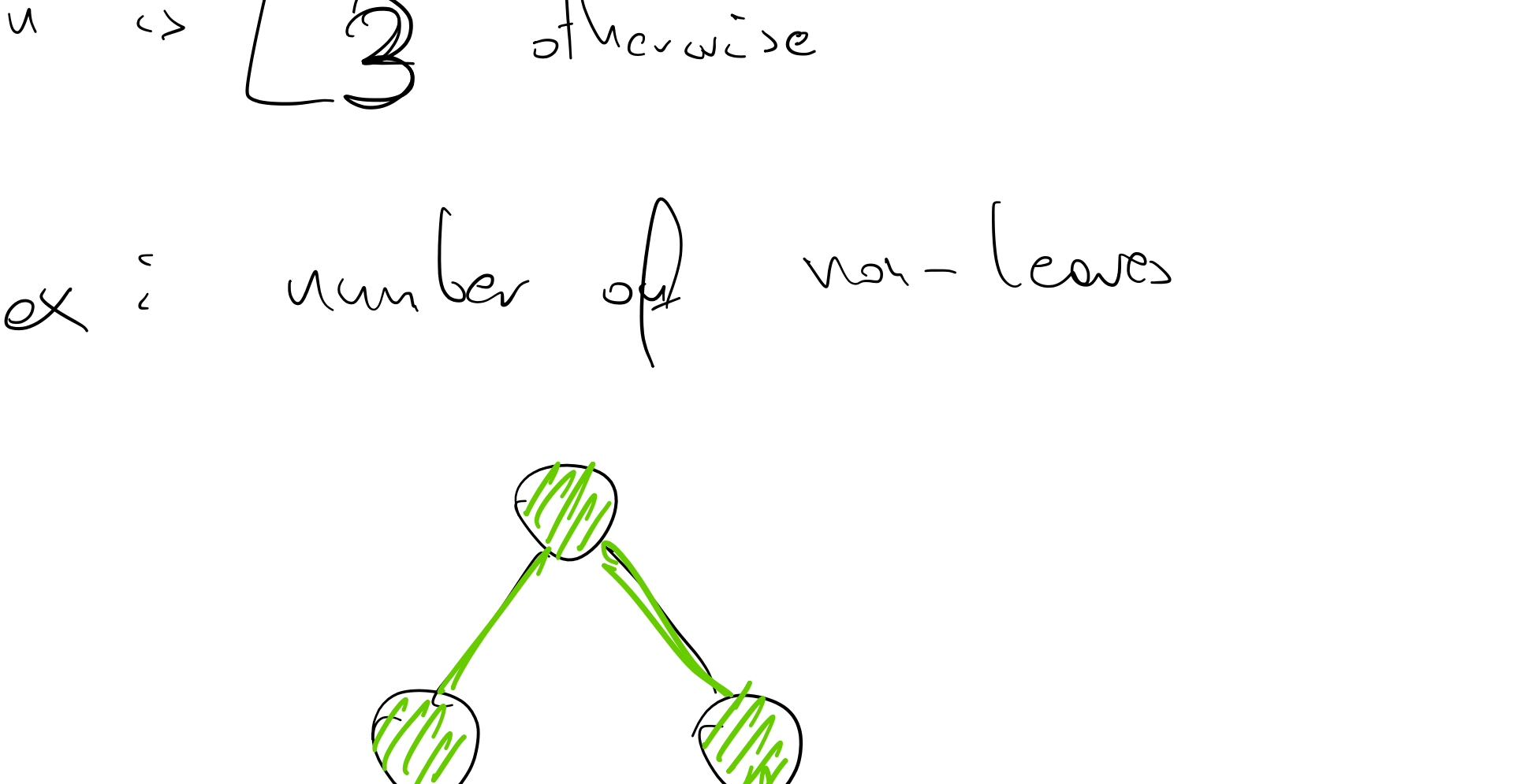
= 0

min [1 number if n odd / 3 otherwise]

Back to tree... Idea: (we must) make all paths equal some x

Min is [1 if all depths have the same parity / 3 otherwise]

Max: number of non-leaves



Answer: number of edges not involving a leaf