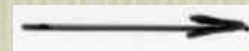


exercise 10

Describe the reciprocal bijection

(external vertex , **B** binary tree)
(n+1) vertices



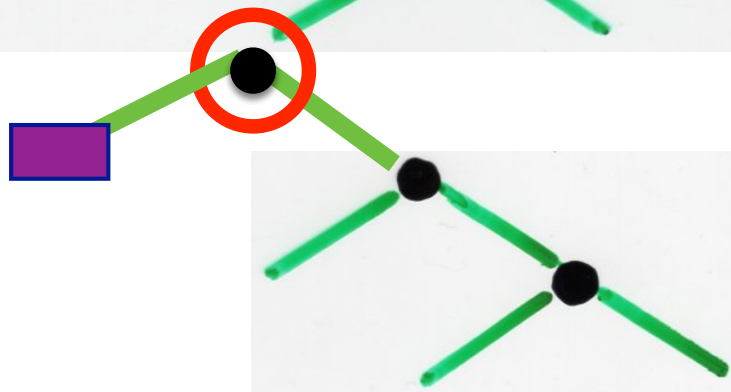
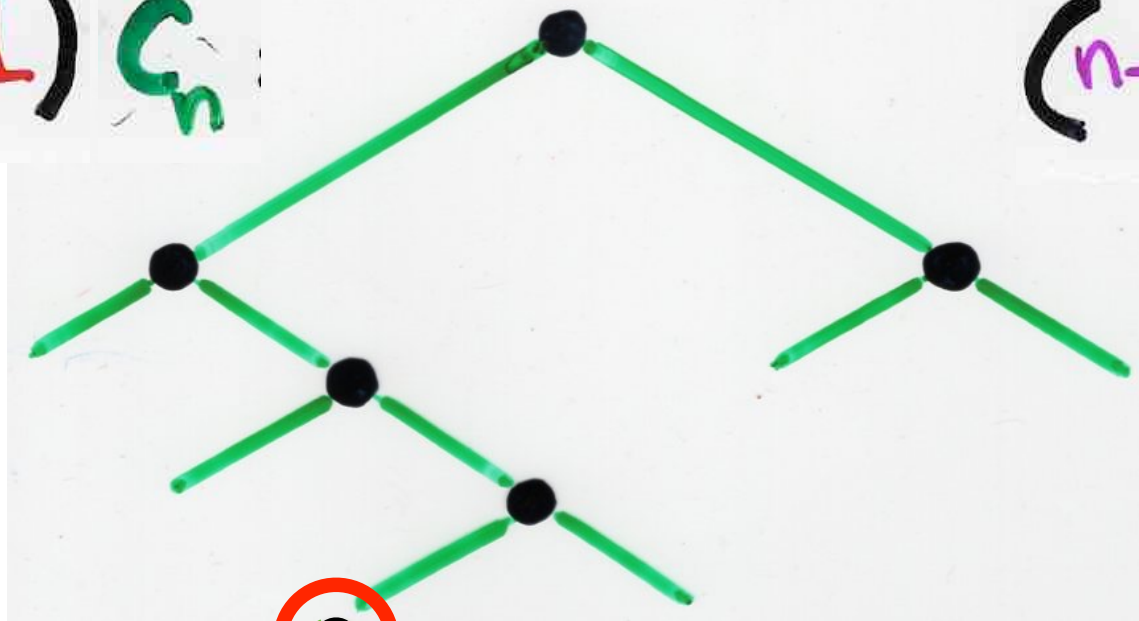
({l, r} , vertex (internal or external) , **B** binary tree)
n vertices

2

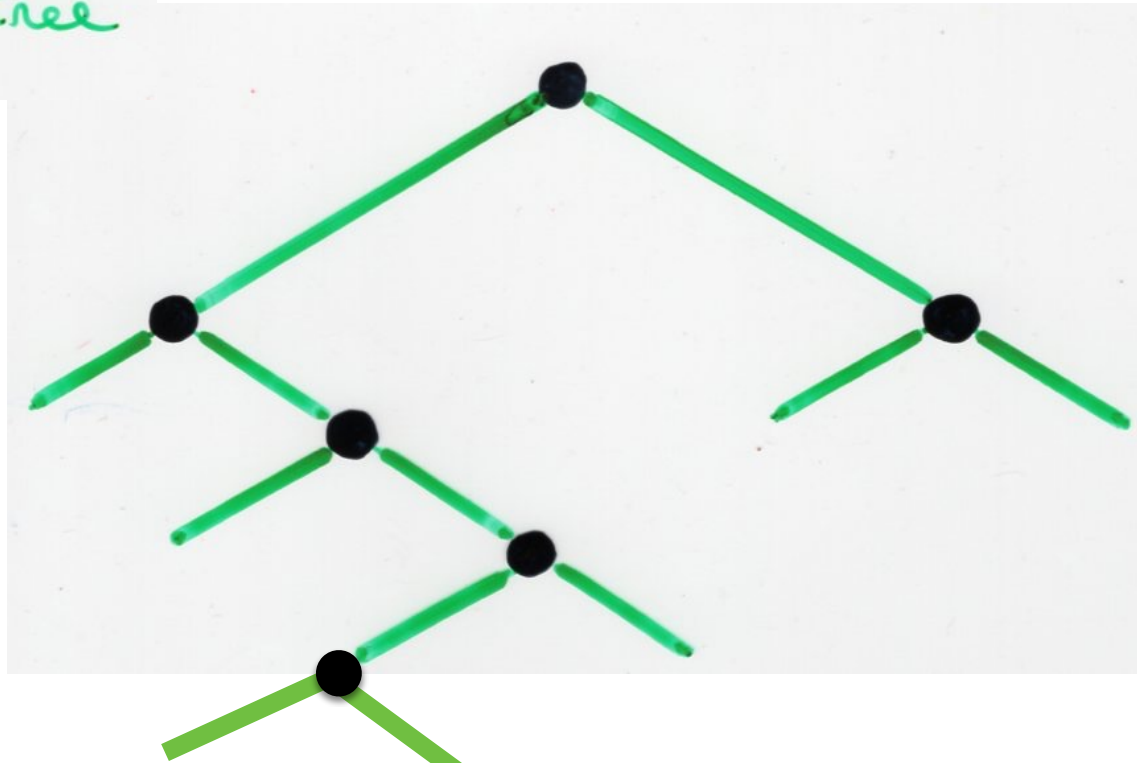
$(2n+1) C_n$

$(n+2)$

C_{n+1}

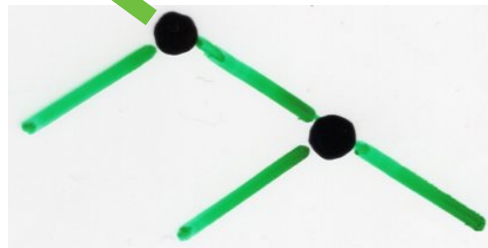


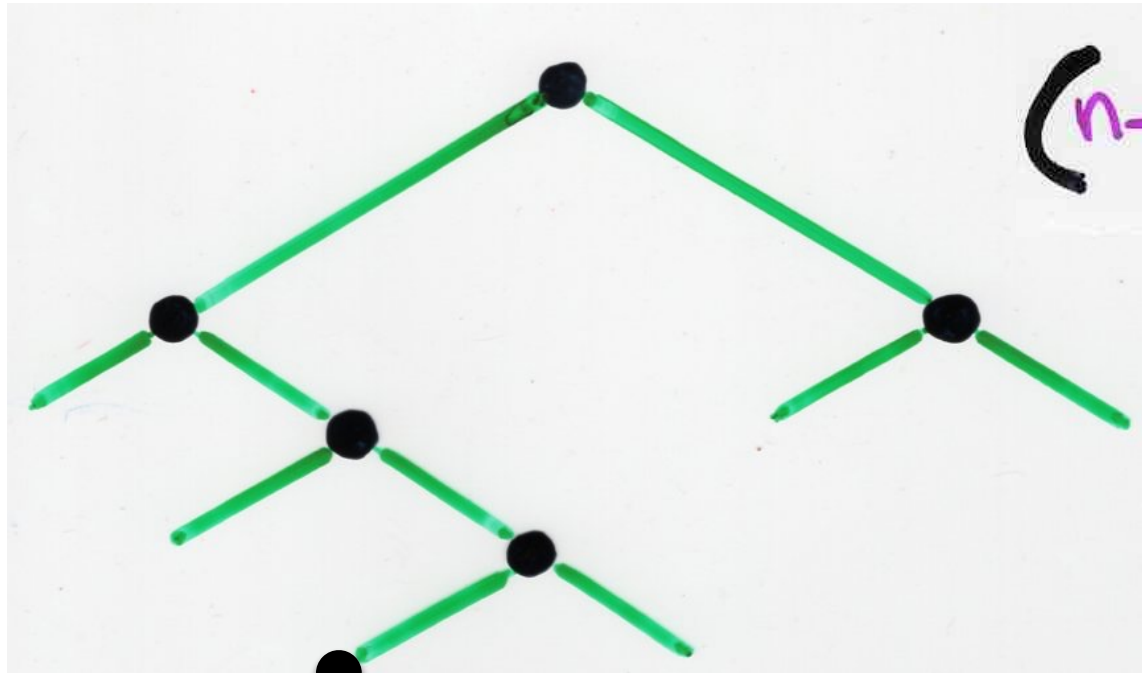
choice of a
binary tree



$$C_{n+1}$$

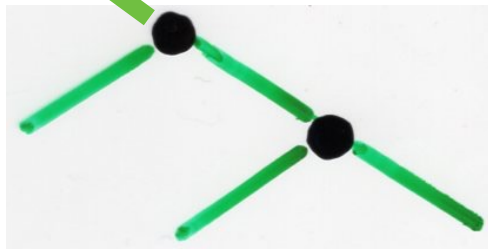
with $(n+1)$
internal vertices
(thus $(n+2)$
external vertices



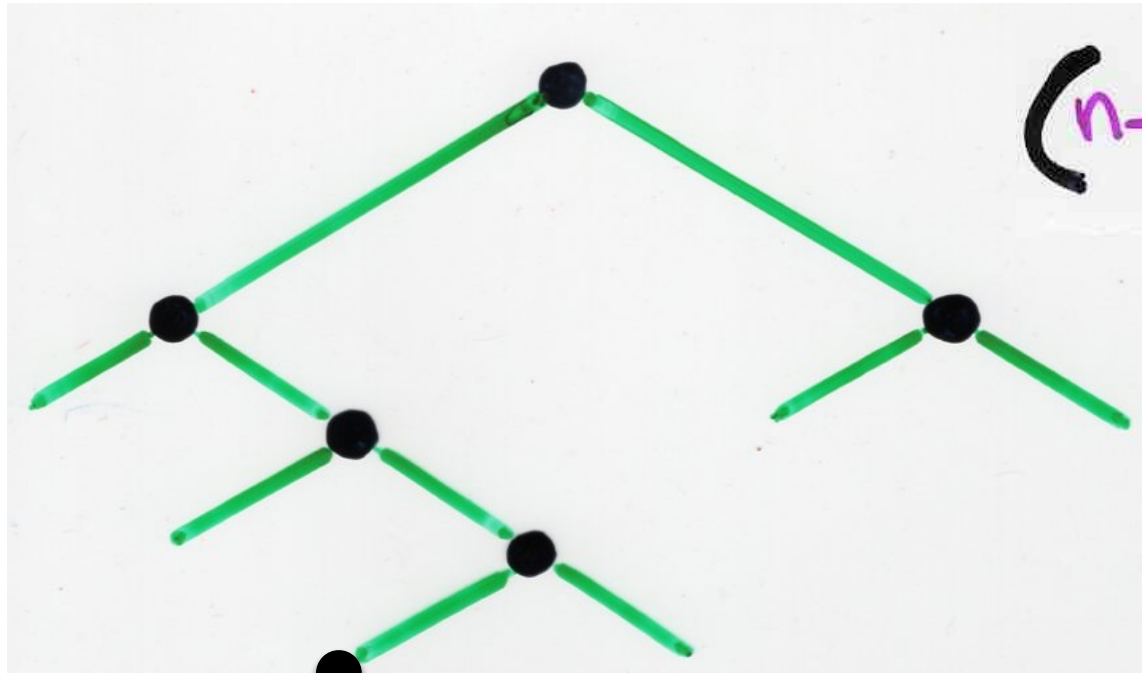


$(n+2)$

C_{n+1}

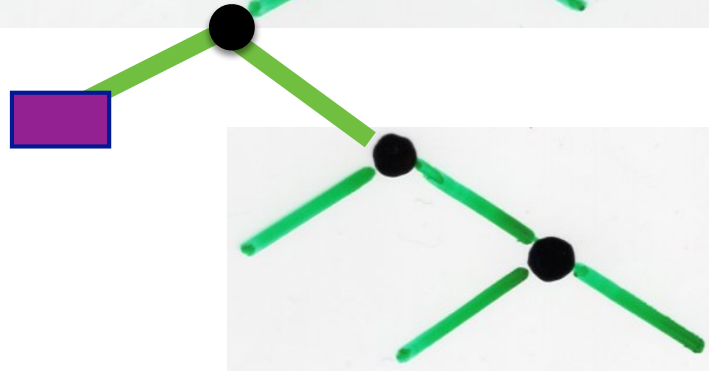


choice of a leaf
(= external vertex)

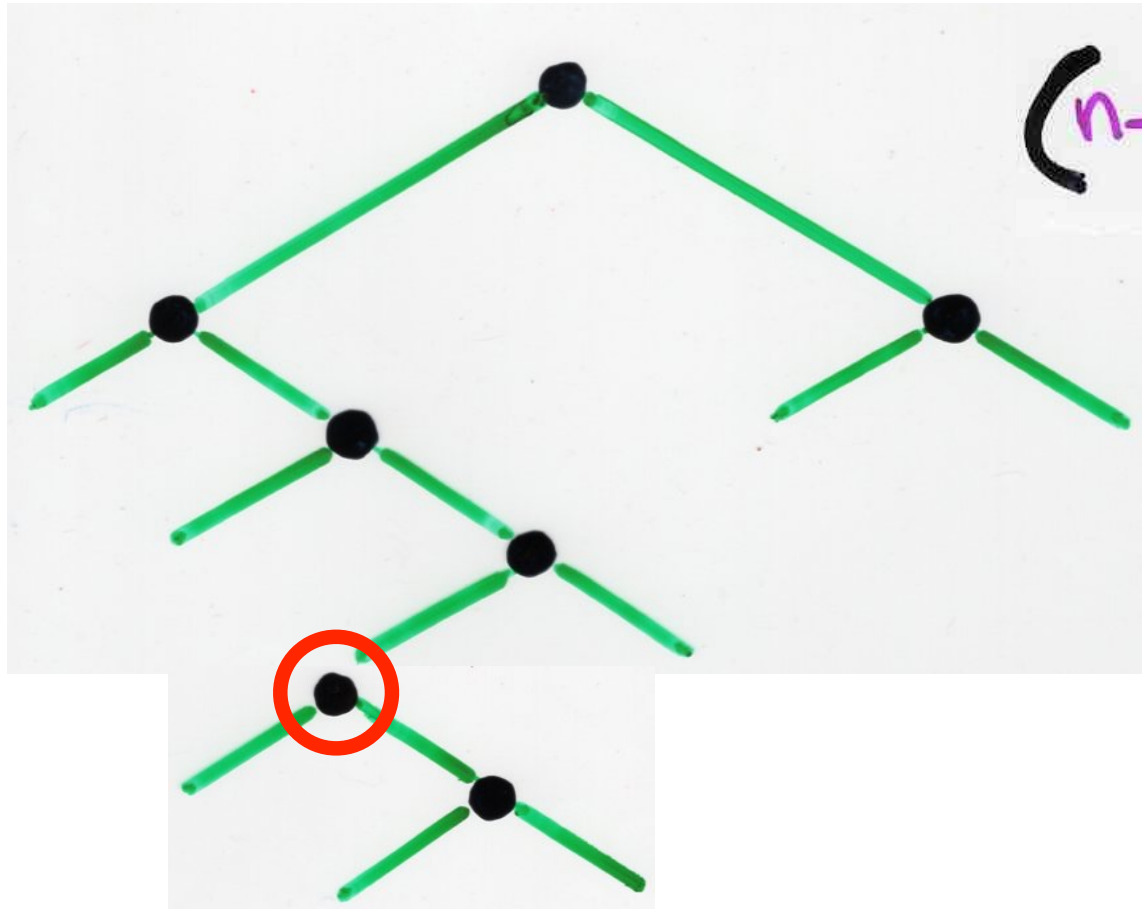


$(n+2)$

C_{n+1}



contraction



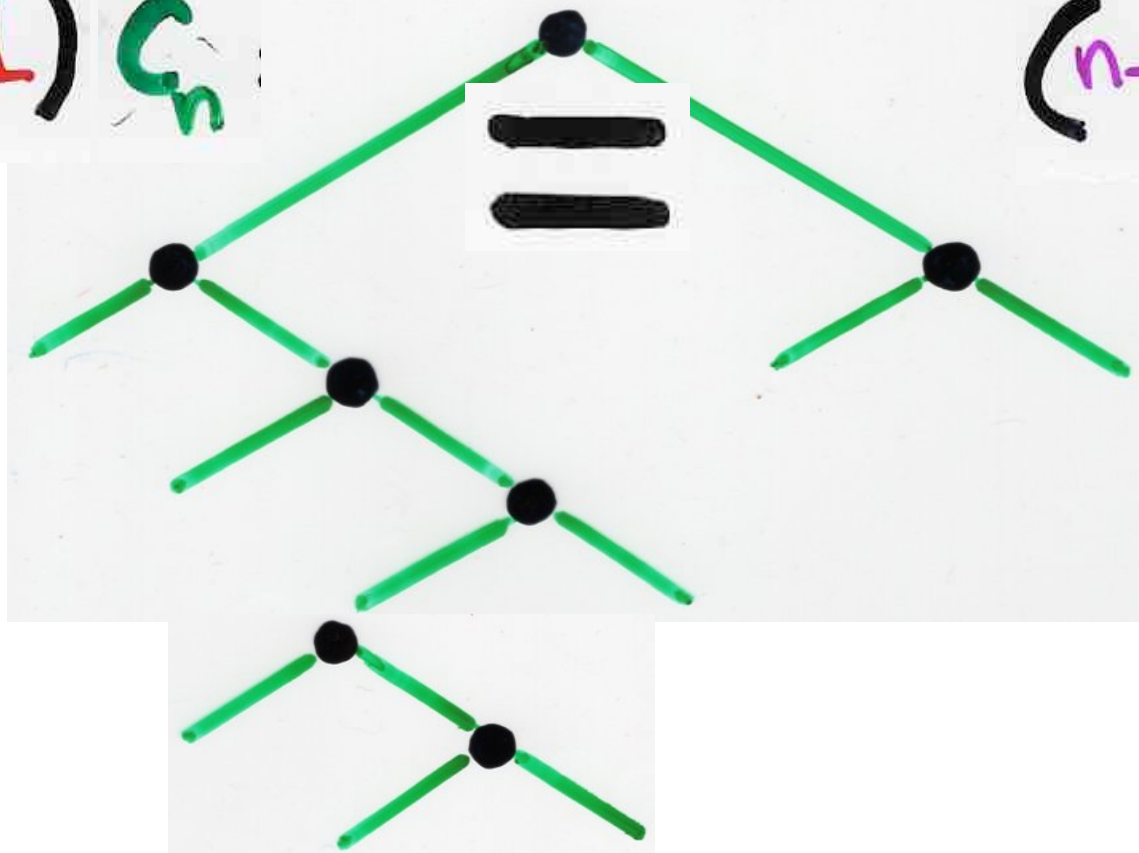
$(n+2)$

C_{n+1}

contraction

2

$(2n+1) C_n$



$(n+2)$

C_{n+1}

