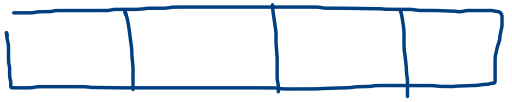
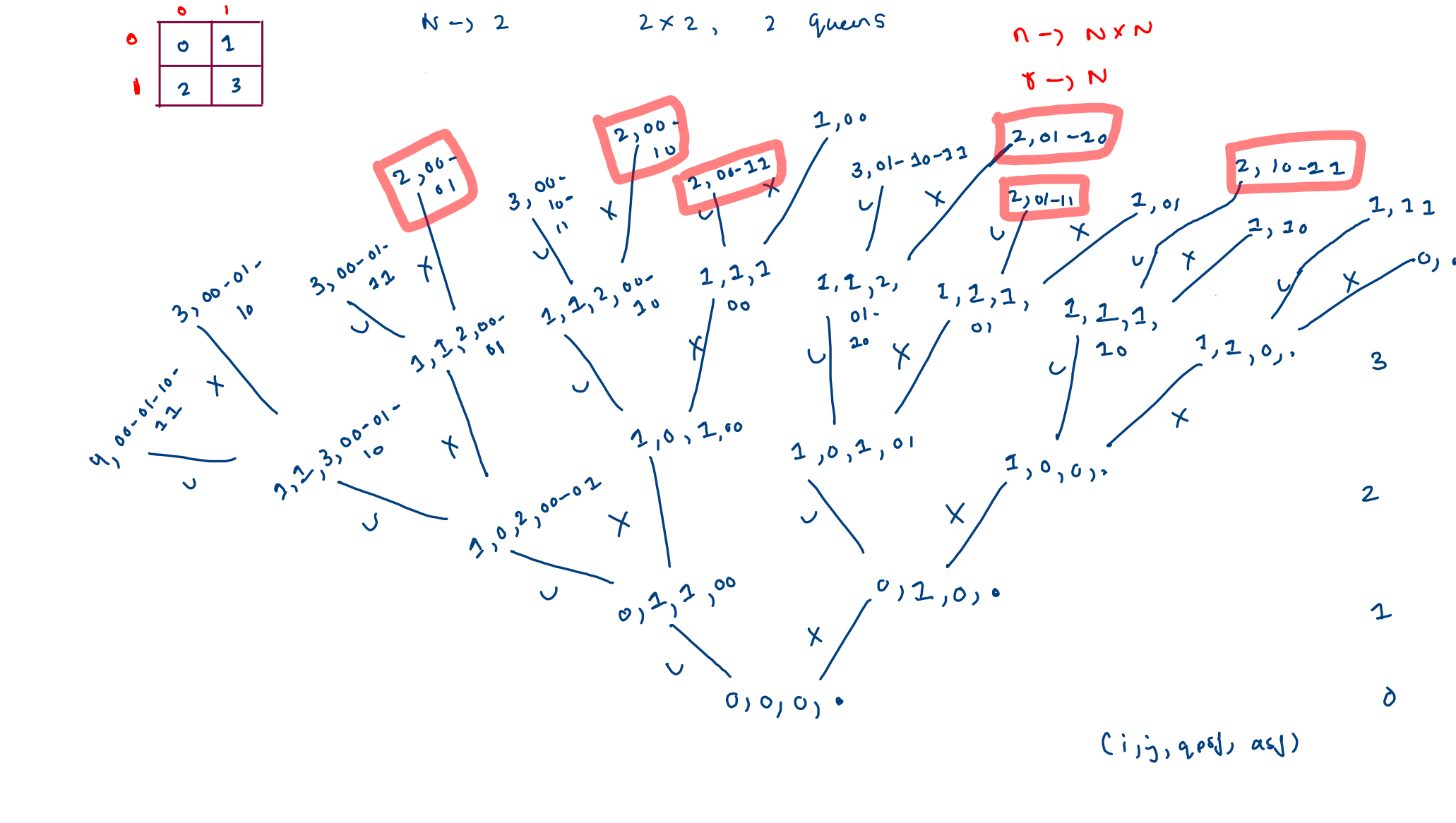
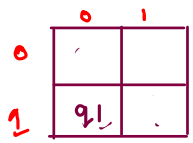


n = 4

r = 3

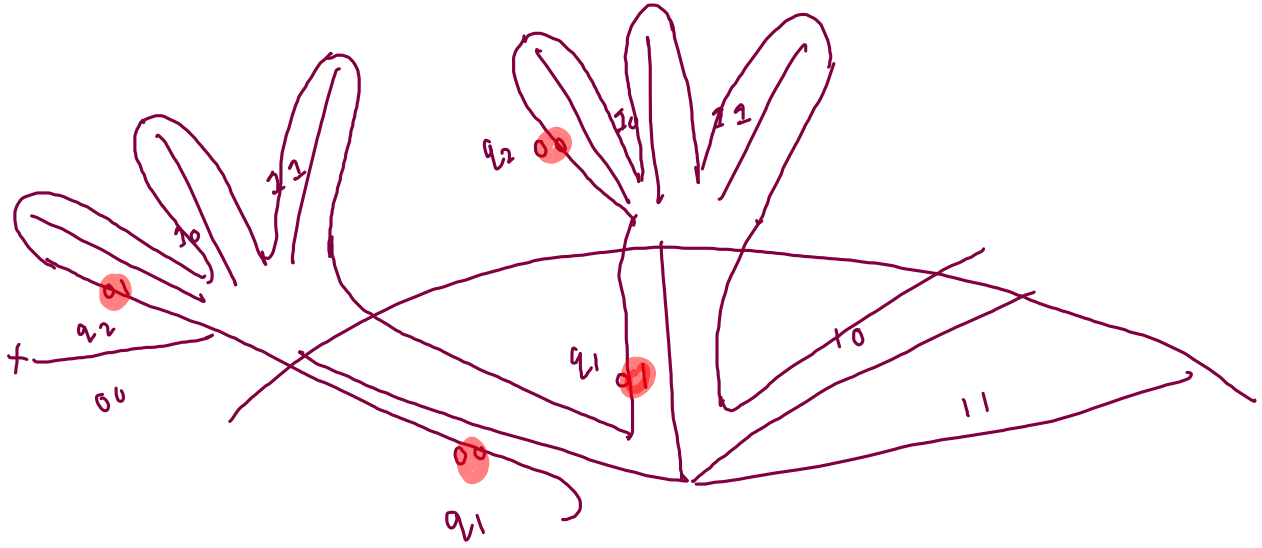
1. p1 → item choices
2. c1 → box choice
3. p2 → box choice
4. c2 → item choice


N -> 2
2 x 2, 2 queens
n -> N x N
r -> N
(i, j, pos, asf)

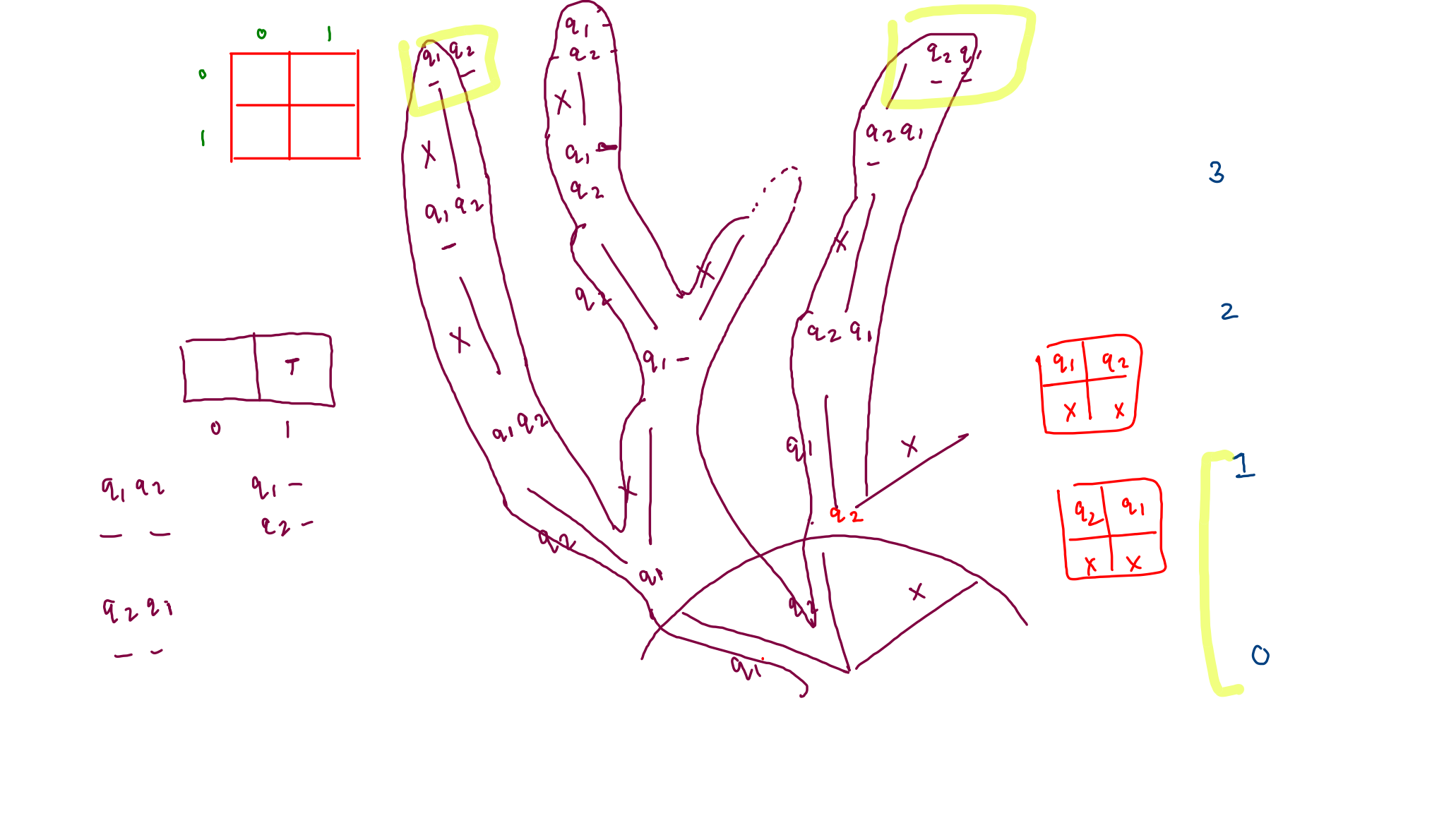


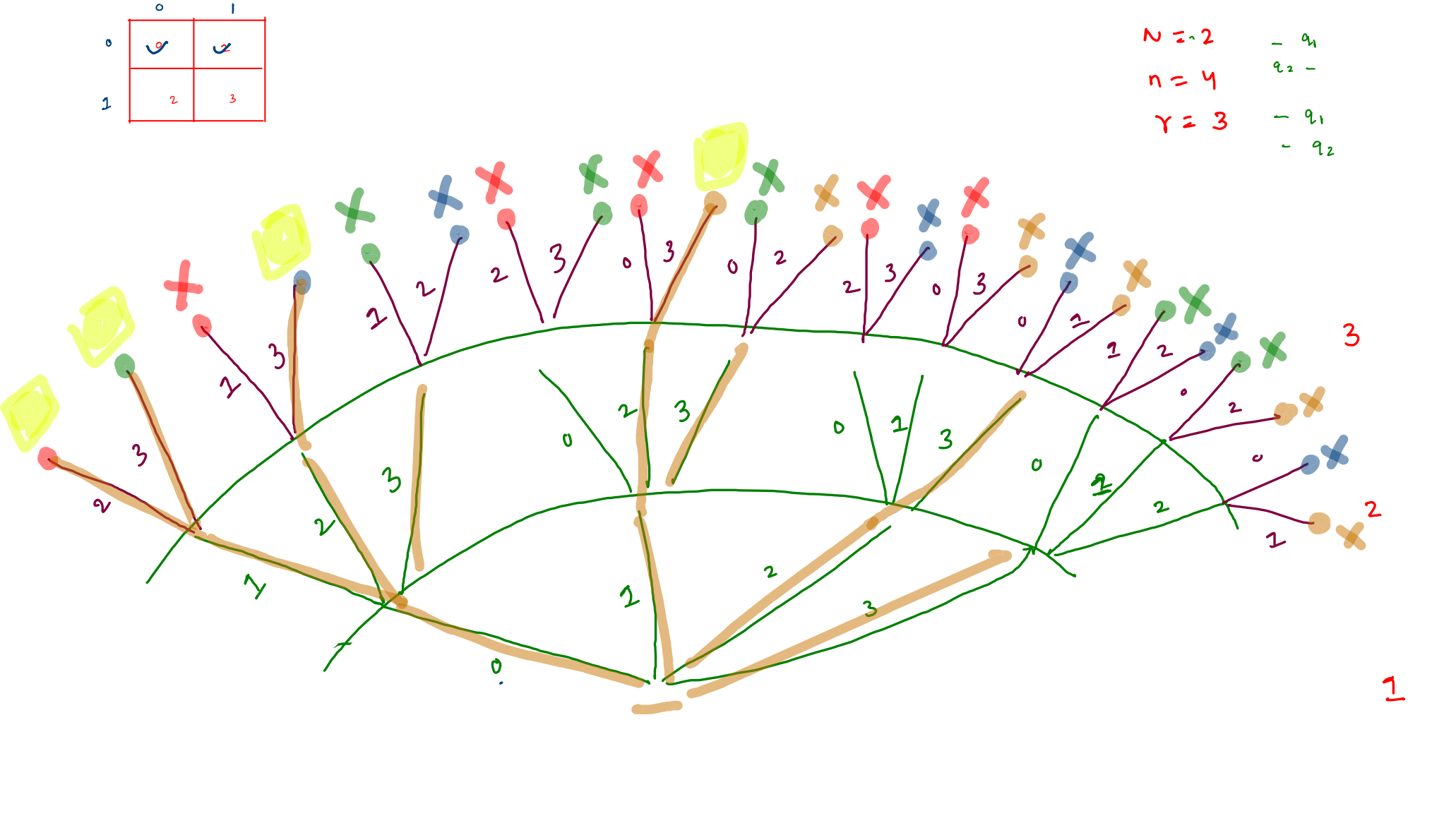
N -> 2 2×2, 2 queens n = 4

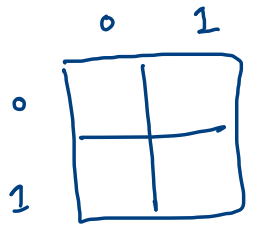
r = 2



q_1 q_2	q_2 q_1
– –	– –
q_1 –	– q_1
q_2 –	q_2 –
q_1 –	– q_1
– q_2	– q_2


0 1
0
1
T
0 1
$q_1 q_2$
— —
q_1 —
q_2 —
$q_2 q_1$
— —
3
2
1
0
q_1 q_2
X X
q_2 q_1
X X


0 1
0
1
2 3
N = 2
n = 4
r = 3
- q_1
q_2 -
- q_1
- q_2



N x N

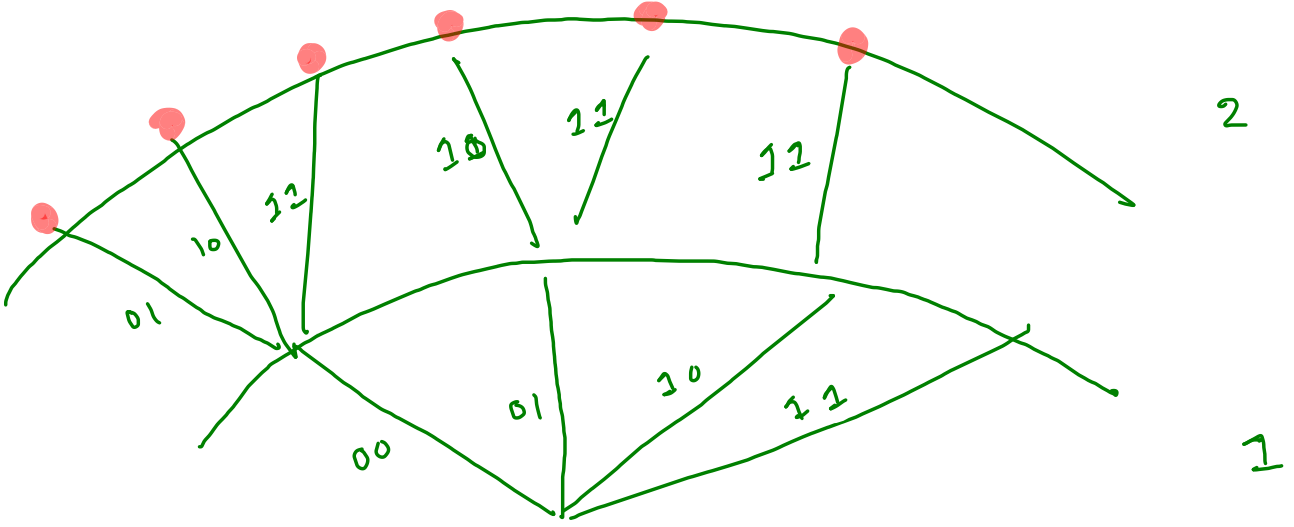
N x N C_N

N = 2

n = 4

r = 2

$4C_2 = 6$



	0	1	2	3
0	0	1	2	3
1	4	5	6	7
2	8	9	10	11

cols = 4

rows = 3

i,j to bno.

(1) bno = i * cols + j

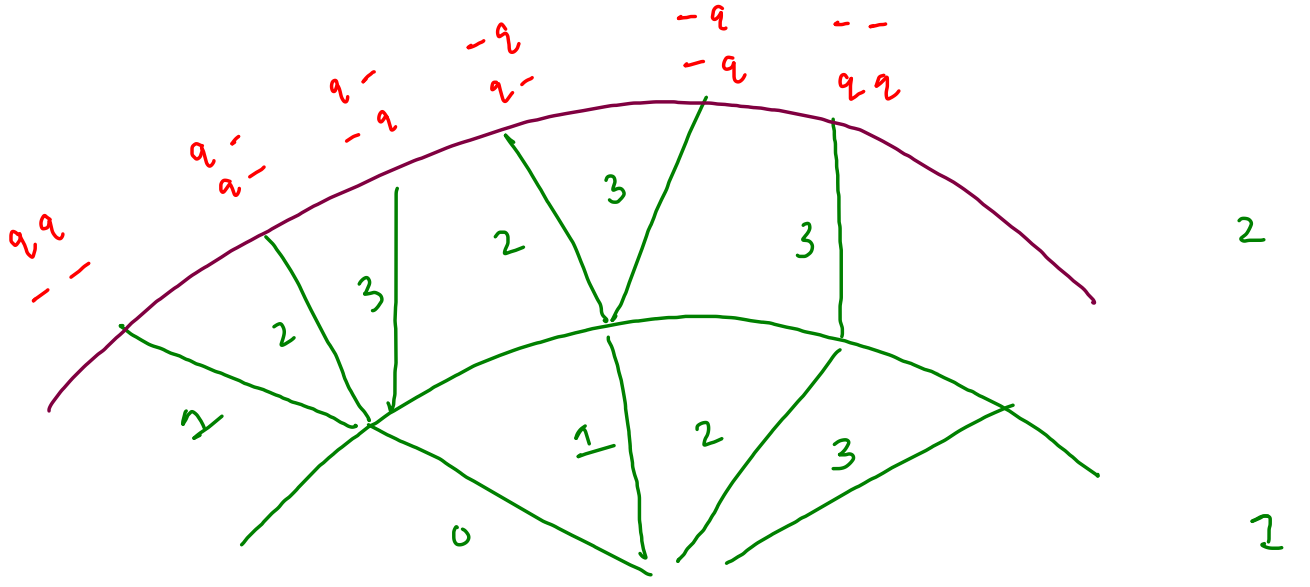
bno. to i,j

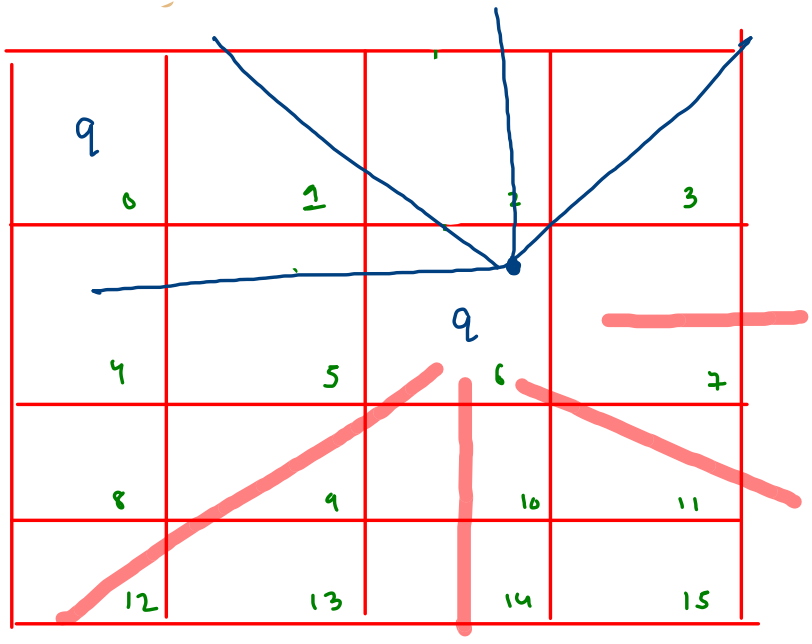
(2) i = bno / m

j = bno % m

	0	1
0	0	1
1	2	3

$^4C_2 = 6$





→ redundant

$n = 16$

$r = 4$

$$^{16}C_4 = \frac{16 \times 15 \times 14 \times 13}{4 \times 3 \times 2}$$

$$= 10 \times 14 \times 13$$

$$= 140 \times 13$$