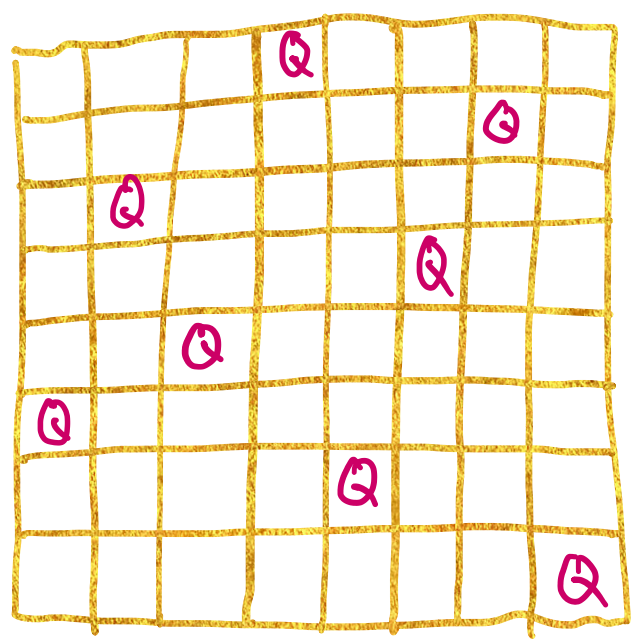


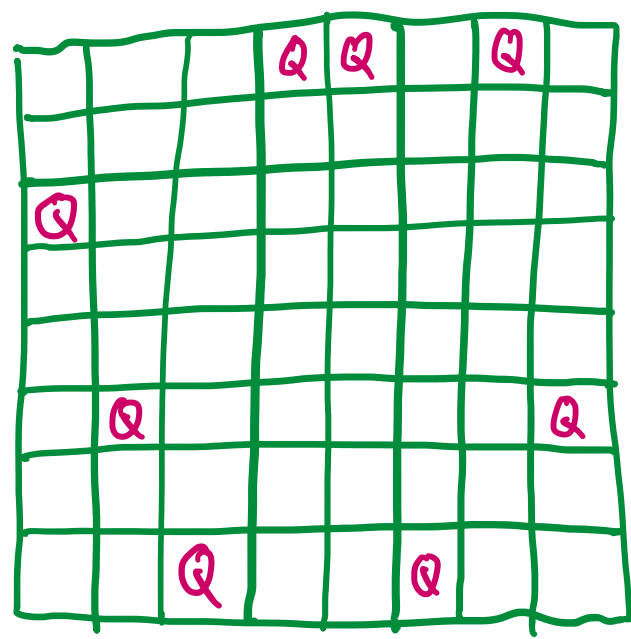
Genetic string encoding: 16257483
ith Queen is on 1st Row, then 6, 2, 5...

* Calculate Fitness score

* 28 possible attacks - max
0 - min index = column #

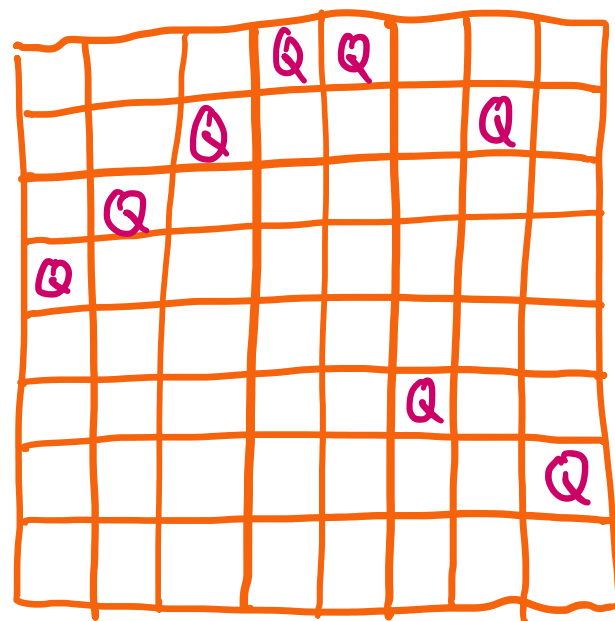


X1=36482571
0 Attacks
8 safe Q's
Fitness Score = 28 - 0 = 28
 $28 / 28 + 22 + 20 = .4 \times 100\% = 40\%$



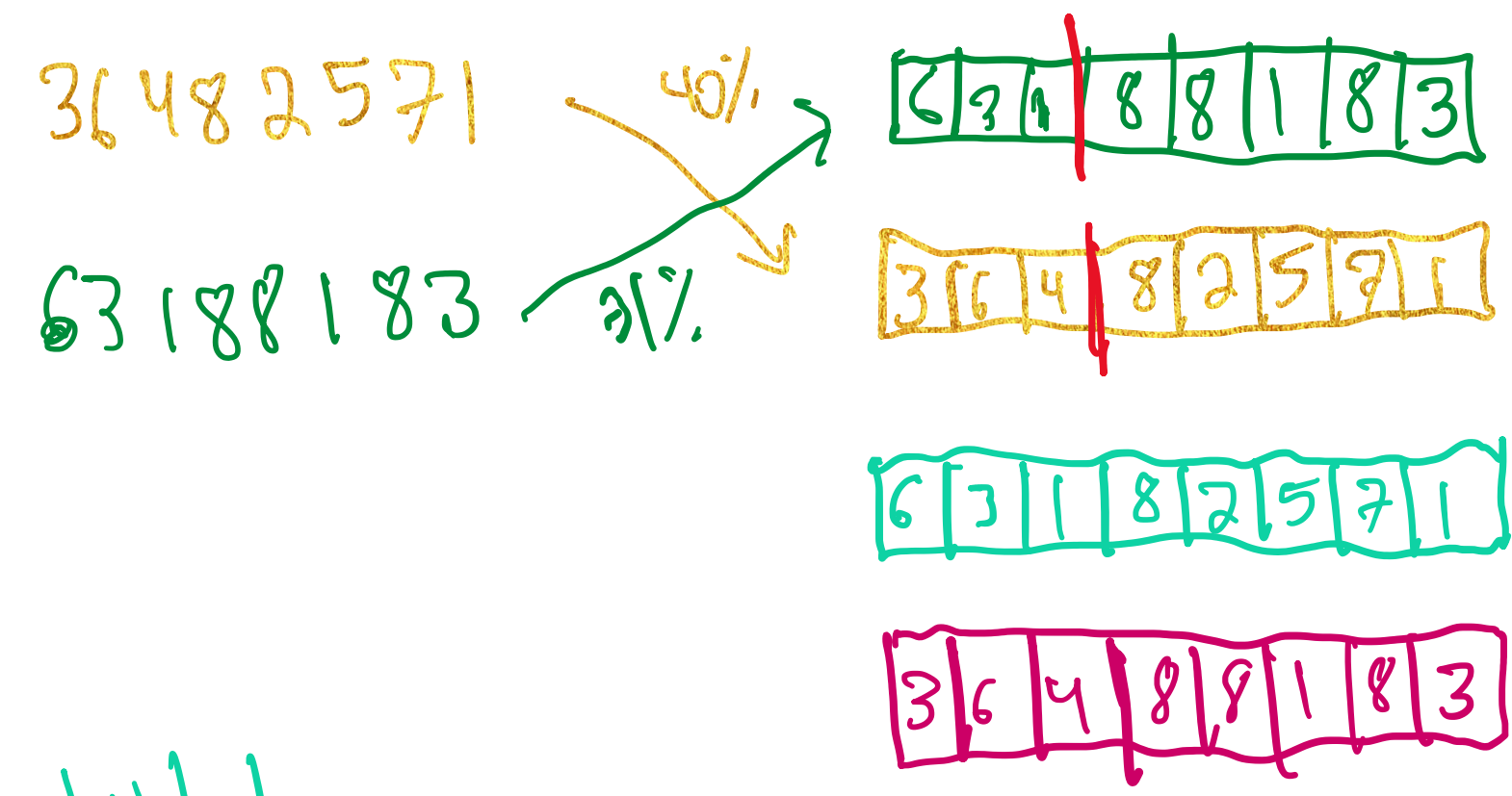
X2=63188183
6 Attacks
1 safe Q
Fitness score = 28 - 6 = 22
 $22 / 28 + 22 + 20 = 0.31 \times 100\% = 31\%$

Selected for generating two children

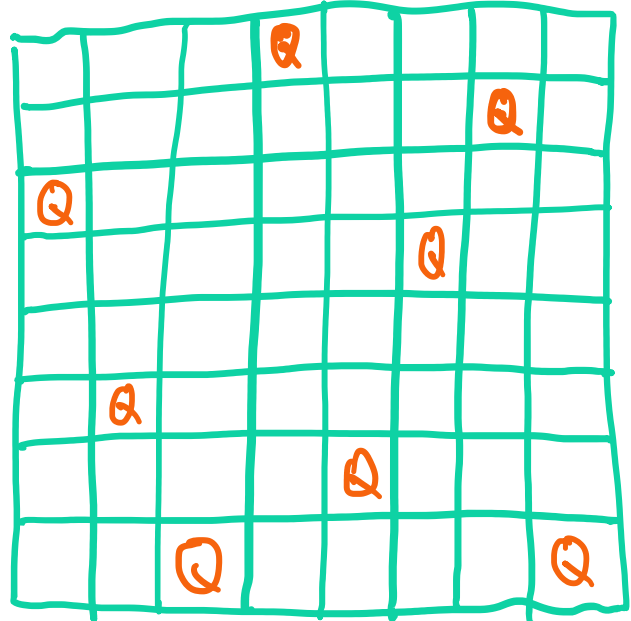


X3=56788372
8 Attacks
2 safe Q's
Fitness Score = 28 - 8 = 20
 $20 / 28 + 22 + 20 = .29 \times 100\% = 29\%$

Crossover

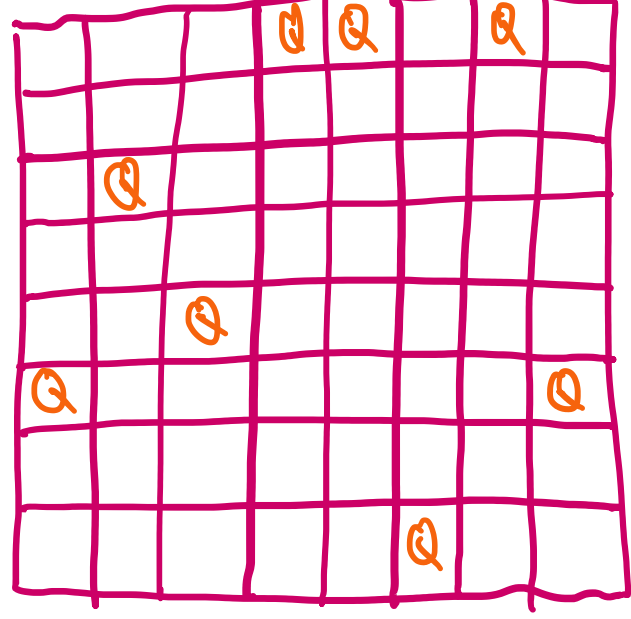


child 1

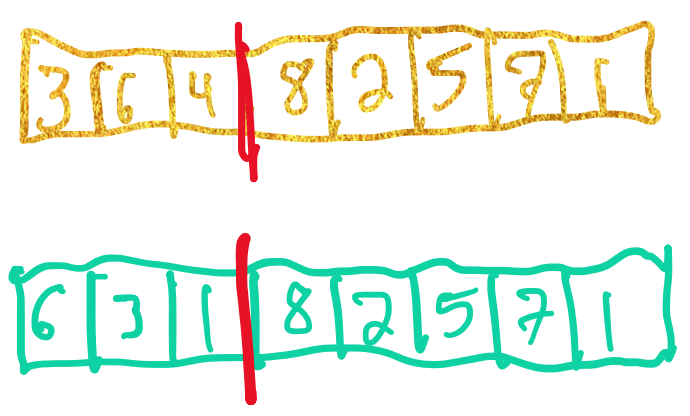


2 Attacks
Fitness Score = 28 - 2 = 26

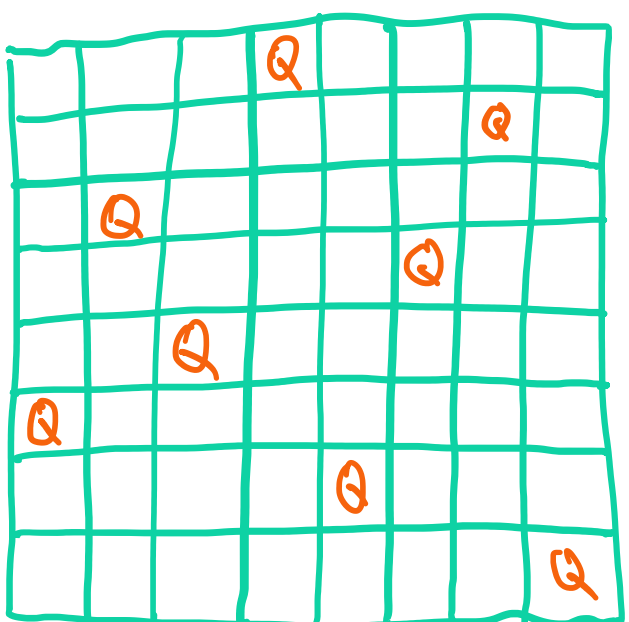
child 2



6 Attacks
Fitness Score = 28 - 6 = 22

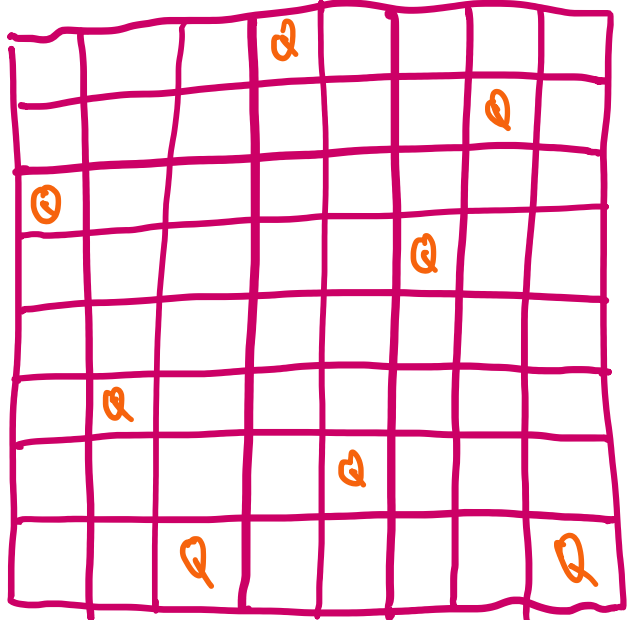


child 3



2 Attacks
28 - 2 = 26

child 4



2 Attacks
28 - 2 = 26