Let's start at 9:05 PM

L68
DP with Bitmasking

RECAP



Let's dive right into it

## Let's understand bitmask DP

dp[m] > represents the answer for a subset of the given set corresponds N numbers to the mask m.

## 1. Best Permutation

Given an integer N. Assume there is an away > 2D N\*N away [ rew[i] [j] => Reward points 1 = N = 20 if the final position of the number i

is at index j.

0 = rwli]4] = 10



find the maximum reward we can get.

$$N^{2} 4$$

$$vw^{2} = \begin{cases} 0 & 0 & 0 & 0 \\ 1 & 0 & 3 & 5 \\ 10 & 5 & 0 & 14 \\ 9 & 6 & 7 & 8 \end{cases}$$

burm = [3,0,1,2] ans = 26

perm = [0, 3, 1, 2] => 23

perm = [1, 2, 3,0] = 13

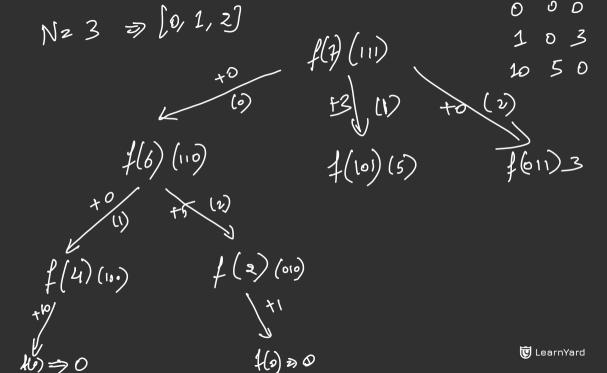
**U** LearnYard

(o, 1, 2,3)

Intuition

$$d\beta \left(2^{N}-1\right)$$





No (00110) dp[10010] dp[10100]

4(m)

Solution

Let's implement

2. PENS (ICPC Problem)

Intuition

Solution



Let's implement

## Thank You!

Reminder: Going to the gym & observing the trainer work out can help you know the right technique, but you'll muscle up only if you lift some weights yourself.

So, PRACTICE, PRACTICE!

