

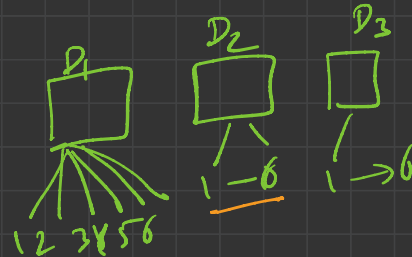

Dynamic Programming

i/p \rightarrow / $N \rightarrow$ dice
 $M \rightarrow$ faces
 $X \rightarrow$ target sum

$$N = 3$$

$$M = 6$$

$$X = \textcircled{12}$$



$D_1 \rightarrow 1$
 $D_2 \rightarrow 5$
 $D_3 \rightarrow 6$

$D_1 \rightarrow 1$

$D_2 \rightarrow 6$

$D_3 \rightarrow 5$

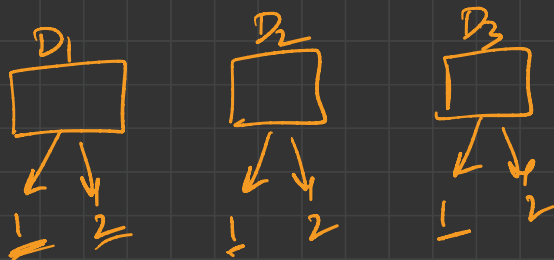
$D_1 \rightarrow 2$
 $D_2 \rightarrow 4$
 $D_3 \rightarrow 8$

$N=3$

$M=2$

$K=6$

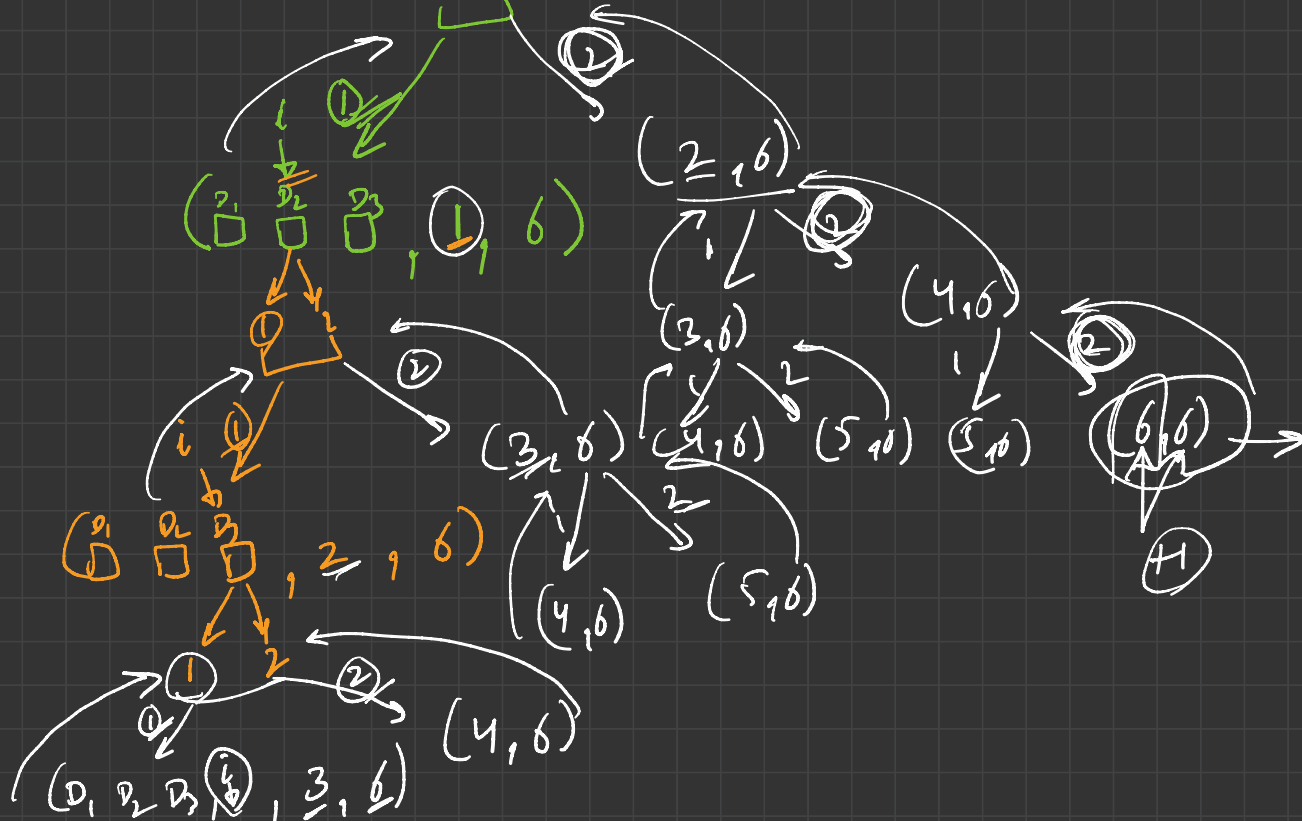
$\boxed{6 \mid 6 \mid 6} \rightarrow \boxed{2 \mid 6}$



$\boxed{2 \mid 2 \mid 2} \rightarrow 8$

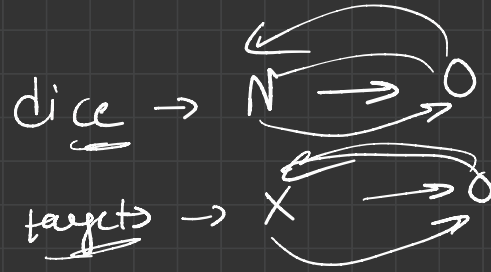
ans \rightarrow (1)

1, 1, 1 \rightarrow 3
1, 1, 2 \rightarrow 4
1, 2, 1 \rightarrow 4
1, 2, 2 \rightarrow 5
2, 1, 1 \rightarrow 4
2, 1, 2 \rightarrow 5
2, 2, 1 \rightarrow 5
2, 2, 2 \rightarrow (6)



Top Down

5.0



Bottom Up

$dp[\text{dice}][\text{target}] \rightarrow dp[\text{dice} - 1][\text{target} - i]$
 cur prev ?

