

$i = 2$	$\text{size} = 5$	$\text{target} = 30$
$[10 20 20 40 50]$	$^0 \quad ^1 \quad ^2 \quad ^3 \quad ^4$	$i = 5$

$i = 0$ $i = 1$ $i = 2$ $i = 3$ $i = 4$

~~if ($i >= \text{size}$) return $\cancel{\&} \cancel{\&} \cancel{\&} \cancel{\&}$~~

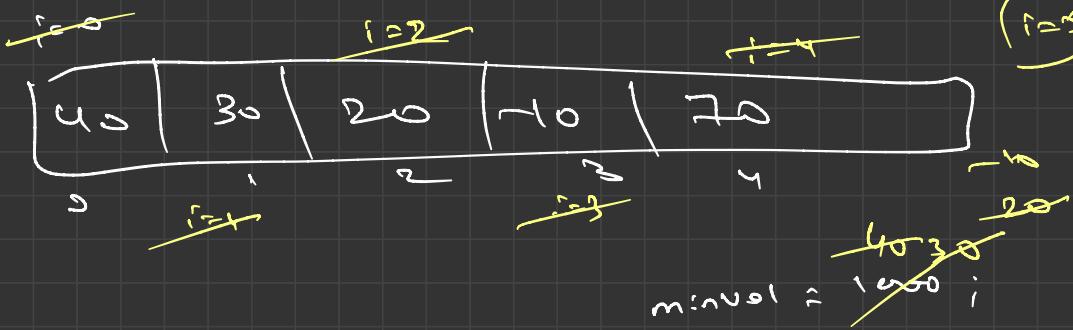
recell ✓

green ✓

greccell ✓

green

green



(: $\geq \text{size}$) return; $\alpha \alpha \alpha \alpha \alpha \alpha \alpha$

$\text{arr}[:] < \text{minval}$) $\text{minval} = \text{arr}[:]$ α

find min(arr, size, i+1, minval)

198

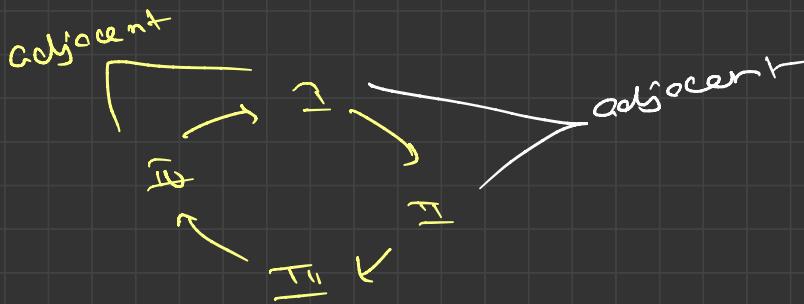
Max Sum of non-adjacent element \rightarrow house robber

House Robber II - 213

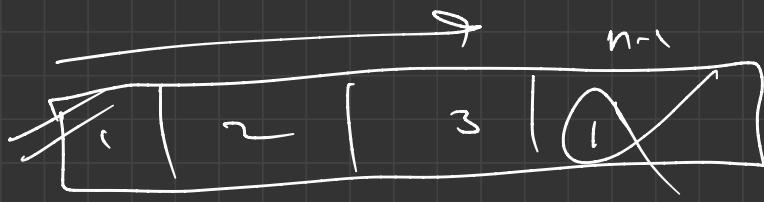
4 house

\hookrightarrow money $\rightarrow \{1, 2, 3, 1\}$

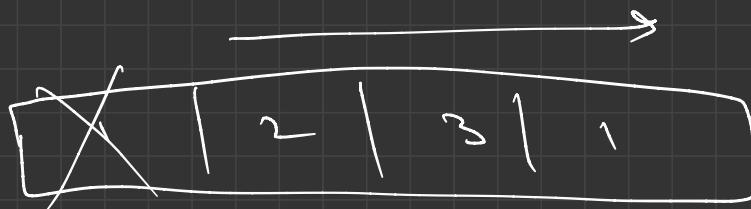
I II III IV



first $\rightarrow \checkmark$ last $\rightarrow \times$
last $\rightarrow \checkmark$ first $\rightarrow \times$

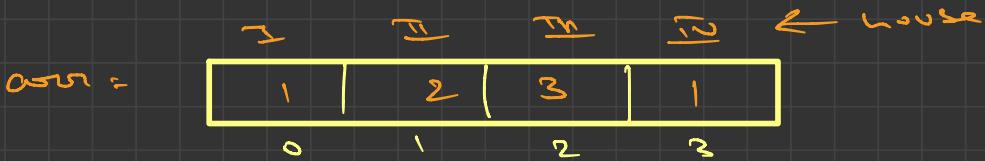


Solve ($0 \rightarrow n-2$)

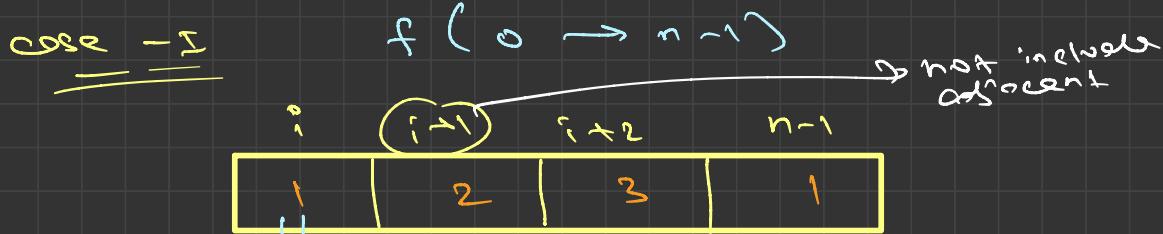


Solve ($1 \rightarrow n-1$)

House Robbers



Rule → adjacent me chahiye koi pooge



Inc ans = (1) + f (i+2 → n-1)

Exc ans = f (i+1 → n-1)

map

Exc ans = 0 + f (i+1 → n-1)

map

lukse mere include
nhii kijo Lukse



Count Derangement

Permutation such that no element appears at their old position

10	20	30
0	1	2

$$\rightarrow \begin{matrix} 30 & 10 & 20 \\ 0 & 1 & 2 \end{matrix}$$

$$\rightarrow \begin{matrix} 20 & 30 & 10 \\ 0 & 1 & 2 \end{matrix}$$

$$n=1 \quad \boxed{1} \Rightarrow 0$$

$$n=2 \quad \boxed{1 \ 2} \Rightarrow 1$$

$$n=3 \quad \boxed{1 \ 2 \ 3} \Rightarrow 2$$

$$n=4 \quad \boxed{1 \ 2 \ 3 \ 4} \Rightarrow 9$$

0 → n-1 increments

1	2	3	4	...	?	...	n-1	n
0	1	2	3	- - -	i-1	- - -	n-2	n-1

lose some range

1 element → change becomes like
n positions

Drawing fence Algorithm

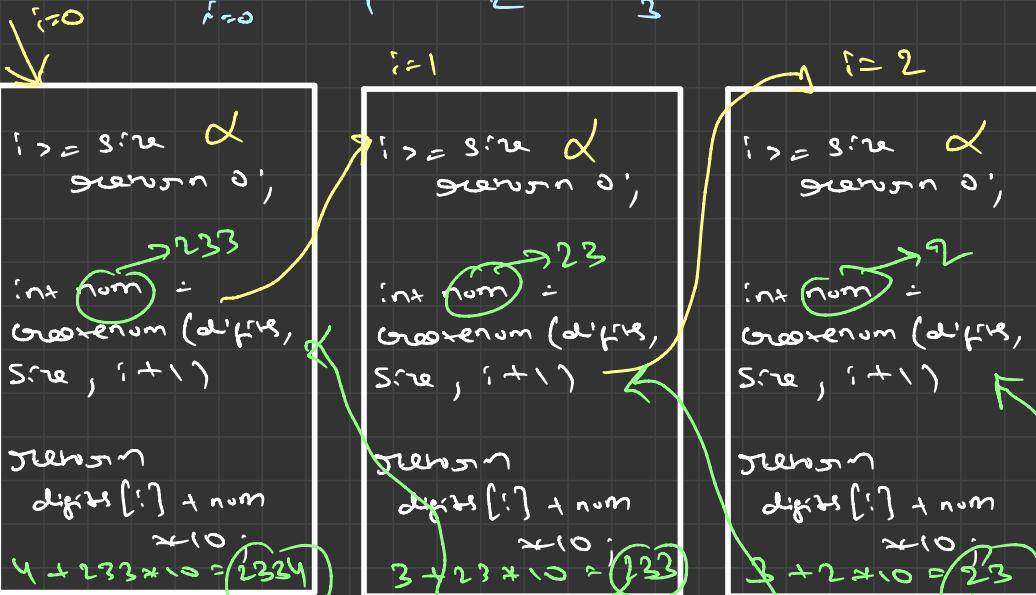
$n \rightarrow$ post

$k \rightarrow$ colors

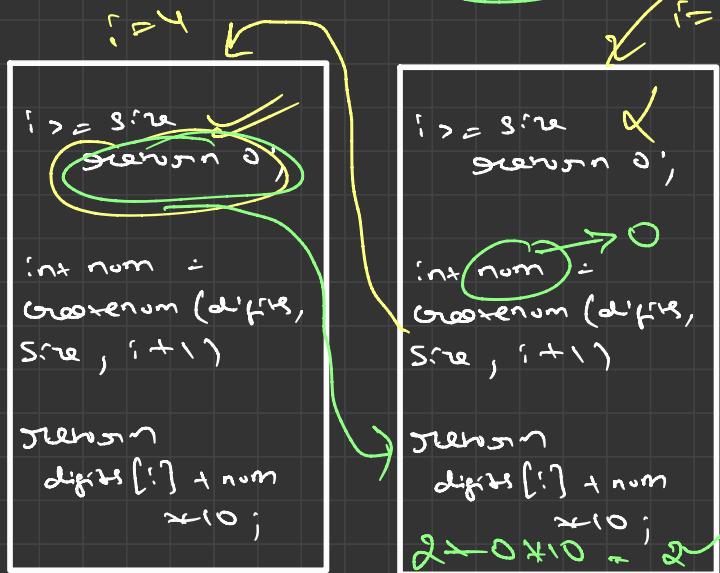
see 3

4	3	2	1
i=0	1	2	3

$$\text{Size} = 4$$



ans





$i >= \text{size} \quad \alpha$
 return num;
 ↓
 $\text{num} = \text{num} + 10 + \text{digit8}[i]$
 $\text{num} = 0 + 10 + 4$
 $= 4$
 $\text{CreateNum}(\text{digit8}, \text{size}, i+1, \text{num})$
 return num;

$i >= \text{size} \quad \alpha$
 return num;
 ↓
 $\text{num} = \text{num} + 10 + \text{digit8}[i]$
 $\text{num} = 4 + 10 + 3$
 $= 43$
 $\text{CreateNum}(\text{digit8}, \text{size}, i+1, \text{num})$
 return num;

$i >= \text{size} \quad \alpha$
 return num;
 ↓
 $\text{num} = \text{num} + 10 + \text{digit8}[i]$
 $\text{num} = 43 + 10 + 3$
 $= 433$
 $\text{CreateNum}(\text{digit8}, \text{size}, i+1, \text{num})$
 return num;

4332

$i >= \text{size} \quad \alpha$
 return num;
 ↓
 $\text{num} = \text{num} + 10 + \text{digit8}[i]$
 $\text{CreateNum}(\text{digit8}, \text{size}, i+1, \text{num})$
 return num;

$i >= \text{size} \quad \alpha$
 return num;
 ↓
 $\text{num} = \text{num} + 10 + \text{digit8}[i]$
 $\text{num} = 433 + 10 + 2$
 $= 4332$
 $\text{CreateNum}(\text{digit8}, \text{size}, i+1, \text{num})$
 return num;

