

$\{ \overset{0}{4}, \overset{1}{5}, \overset{2}{1}, \overset{3}{3} \}$

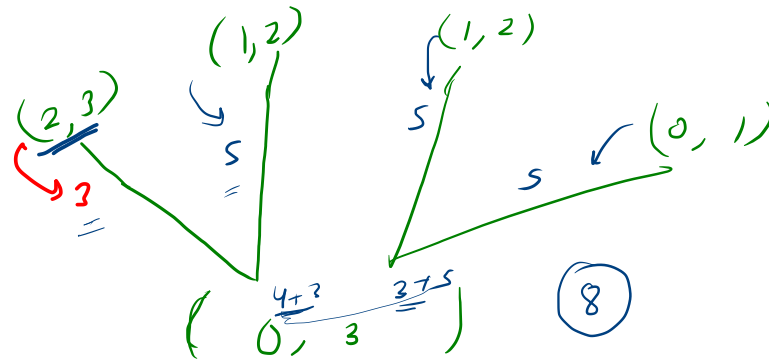
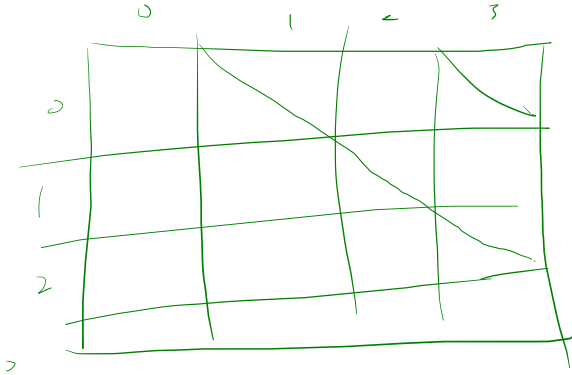
$(i, j) \Rightarrow$

$$\text{nums}(i) + \min \{ \text{sum}(i+2, j), \text{sum}(i+1, j-1) \}$$

$$\text{nums}(j) + \min \{ \text{sum}(i+1, j-1), \text{sum}(i, j-2) \}$$

$\rightarrow \text{if } (i+1=j)$
 $\rightarrow \min(\text{nums}(i), \text{nums}(j))$

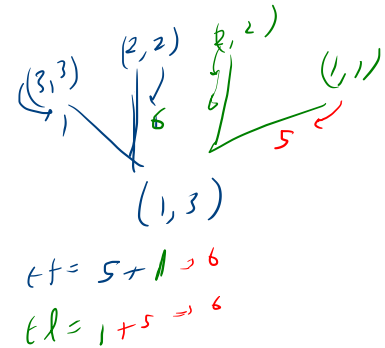
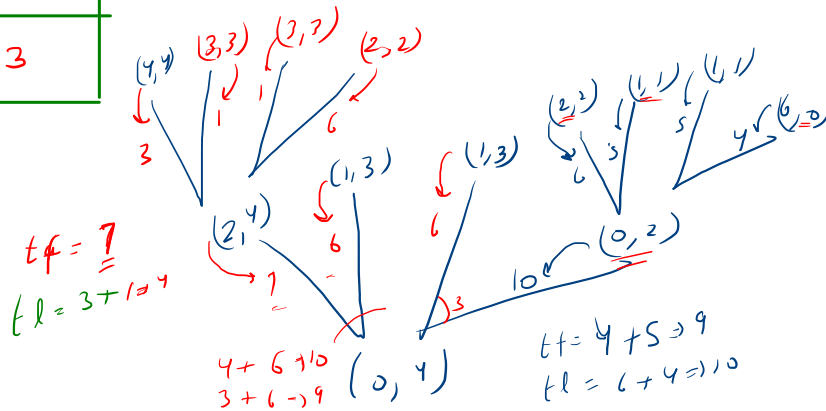
$\text{if } (i=j)$
 $\text{return } \text{nums}(i)$



0 1 2 3 4
 4, 5, 6, 1, 3

0	1	2	3	4
4		10		<u>10</u>
	5		6	
		6		7
			1	
				3

4,4 2,4
 3,3 1,1
 2,2 1,3



```
public static int solve_memo(int[] arr, int i, int j, int[][] dp){
    if(i+1 == j){
        return dp[i][j] = Math.max(arr[i], arr[j]);
    }

    if(i==j){
        return dp[i][j] = arr[i];
    }

    if(dp[i][j] != 0) return dp[i][j];

    int ans = 0;
    int takeFirst = arr[i] + Math.min(solve_memo(arr, i+2, j, dp), solve_memo(arr, i+1, j-1, dp));
    int takeLast = arr[j] + Math.min(solve_memo(arr, i+1, j-1, dp), solve_memo(arr, i, j-2, dp));

    ans = Math.max(takeFirst, takeLast);

    return dp[i][j] = ans;
}
```

$$n = 4$$

$$k = 3 \Rightarrow \mu$$

$$= g$$

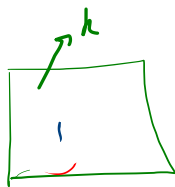
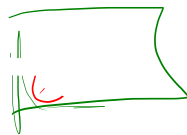
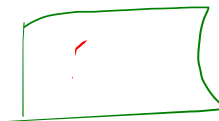
$$n = 3$$

$$k = 2$$

$$1 \Rightarrow 2$$

$$n = 4$$

$$k = 3$$


 μ
 μ
 g
 g
 g
 μ

 μ
 g
 μ
 g
 μ
 g

 g
 μ
 μ
 μ
 g
 g

$$2 \Rightarrow k \times h$$

$$3 \Rightarrow f(2) * (k-1)$$

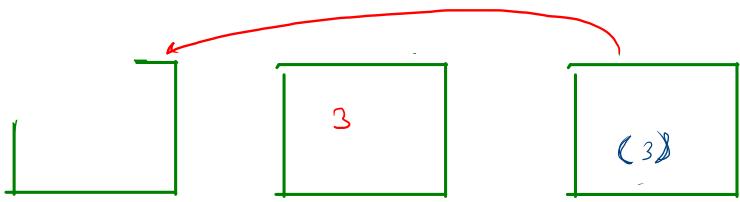
$$4 \Rightarrow f(3) * (k-1) + f(2) * (k-1)$$

$$5 \Rightarrow f(4) * (k-1) + f(3) * \underline{k-1}$$

$$f(n) \Rightarrow (f(n-1) + f(n-2)) * (k-1)$$

$$f(4) \Rightarrow (f(3) + f(2)) *$$

$k=3$



$\mu(3)$

\underline{b}
 \underline{g}

$\mu \underline{a}$
 $\underline{b} \underline{b}$
 $\underline{g} \underline{g}$

$\underline{2}$
 $\underline{2}$
 $\underline{2}$
 3
 3
 3
 3
 3
 3
 3

$\rightarrow \mu \underline{b}$
 $\mu \underline{g}$
 $\underline{b} \underline{g}$
 $\underline{b} \underline{a}$
 $\underline{g} \underline{b}$
 $\underline{g} \underline{a}$

$\mu \underline{b}$
 $\mu \underline{g}$
 $\underline{b} \underline{b}$
 $\underline{b} \underline{g}$
 $\underline{g} \underline{g}$
 $\underline{g} \underline{b}$
 $\mu \underline{b} \underline{a}$
 $\mu \underline{b} \underline{g}$
 $\underline{a} \underline{b} \underline{b}$
 $\underline{a} \underline{g} \underline{a}$
 $\underline{a} \underline{g} \underline{b}$
 $\underline{a} \underline{g} \underline{g}$
 $\underline{b} \underline{g} \underline{a}$
 $\underline{b} \underline{g} \underline{b}$
 $\underline{b} \underline{g} \underline{g}$
 $\underline{b} \underline{a} \underline{a}$
 $\underline{b} \underline{a} \underline{b}$
 $\underline{b} \underline{a} \underline{g}$

3
 3
 3
 3
 3
 3
 3
 3
 3
 3
 3
 3
 3
 3
 3
 3
 3

⑥

$\underline{g} \underline{b} \underline{a}$
 $\underline{g} \underline{b} \underline{b}$
 $\underline{g} \underline{b} \underline{g}$
 $\underline{g} \underline{a} \underline{a}$
 $\underline{g} \underline{a} \underline{b}$
 $\underline{g} \underline{a} \underline{g}$

3
 2
 3
 2
 3
 3

$$f(3) = \frac{k \times k-1}{\sqrt{k^2-k}} \times k$$

$$(k) \times (k-1) + k(k-1) \times k$$

$$k \times (k-1) + k^2(k-1)$$

$$\Rightarrow (k^2 + k) \times (k-1)$$

$$\downarrow \quad \downarrow$$

$$f(2) \quad f(1)$$

$$f(3) = \sqrt{f(1) + f(2)} \times (k-1)$$

$$f(3) \Rightarrow \underline{(k-1)(k+k^2)}$$

$$f(n) = \frac{(f(n-1) + f(n-2)) \times (k-1)}{1}$$

$$\underline{f(4)} = \frac{(f(3) + f(2)) \times (k-1)}{1}$$

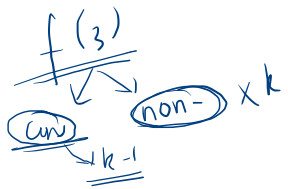
$$f(1) = 3 \rightarrow 3 \times 3$$

$$f(2) = 9 \rightarrow \underline{6 \times 2}$$

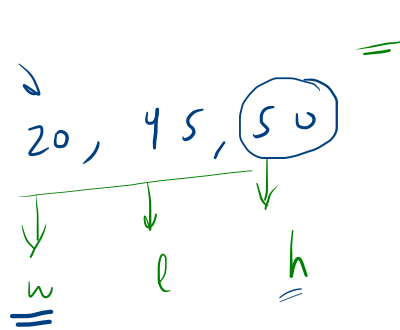
$$f(3) = 24 \rightarrow \underline{18 \times 3}$$

$$f(4) = \underline{66} \rightarrow \underline{48}$$

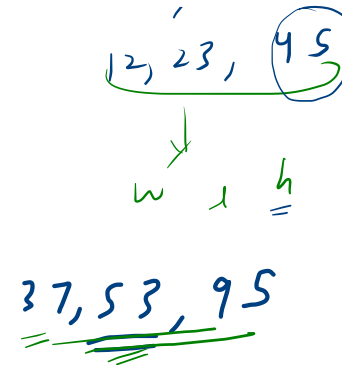
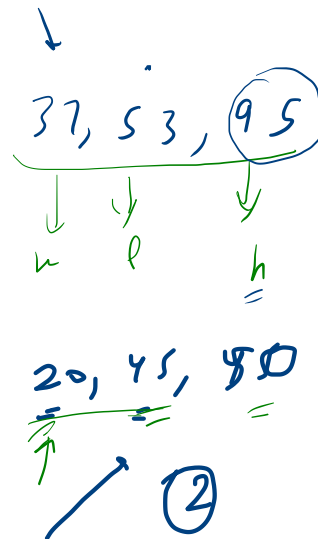
$$f(5) = 48 \times 3 + 18 \times 2$$



$[[50, 45, 20], [95, 37, 53], [45, 23, 12]]$



12, 23, 45
↗
①



45	<u>95</u>	140
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