

Dynamic Memory Allocation: Process of allocating resources / memory to the user/application during runtime to make the system more efficient. The header file `#include <stdlib.h>` is used.

① `malloc (size)` ② `calloc (n, size)`

`whole 32bytes` Say 32 bytes
2 initially garbage

`0|0|0|0|0|0|0|0` (default) $32/4 = 8$ 4bytes
8 equal blocks

The return type of both `malloc` & `calloc` is `void` pointer, so we need to perform type casting depending on the type of data!

③ `realloc (ptr, new size)`; ④ `free (ptr)`

Oracle

140 LPA

Amazon

440 LPA

Microsoft

38 LPA

80 LPA

Cognizant

Ninja
TCS
NGT \rightarrow 6 LPA

60 LPA

Accenture
(1823)

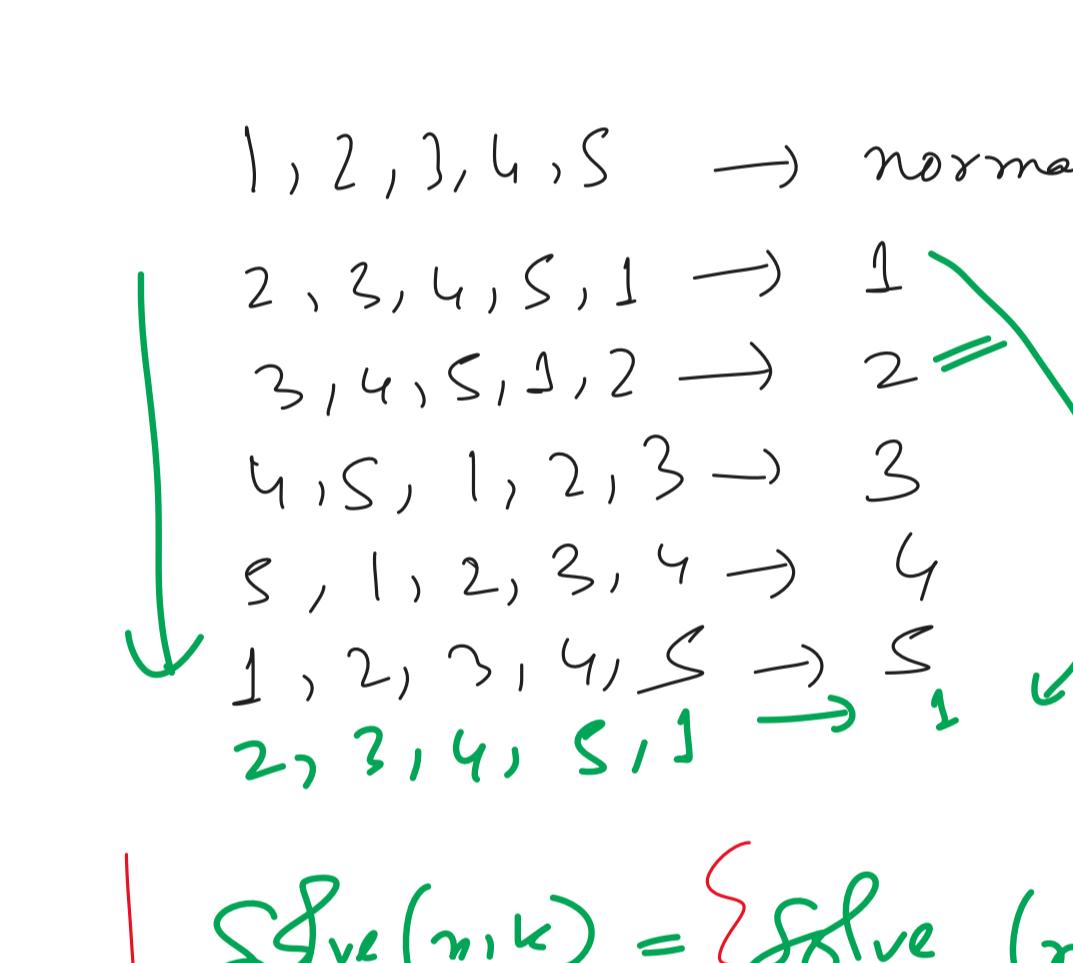
11-12 LPA

Lumen Tech

6-7 LPA

Wipro

Find the winner of the Circular Game (Josephus Recursion)



n	ω
1	1
2	1
3	3
4	1
5	3
6	5

$0, 1, 1, 2, 3, 5, 8, 13, \dots$

$n \rightarrow n-1, f(n) \rightarrow f(n-1)$

$Solve(n, k) \rightarrow Solve(n-1, k)$

$Solve(2, k) \rightarrow Solve(1, k)$

$Solve(3, k) \rightarrow Solve(2, k)$

$Solve(4, k) \rightarrow Solve(3, k)$

$Solve(5, k) \rightarrow Solve(4, k)$

$Solve(6, k) \rightarrow Solve(5, k)$

$Solve(7, k) \rightarrow Solve(6, k)$

$Solve(8, k) \rightarrow Solve(7, k)$

$Solve(9, k) \rightarrow Solve(8, k)$

$Solve(10, k) \rightarrow Solve(9, k)$

$Solve(11, k) \rightarrow Solve(10, k)$

$Solve(12, k) \rightarrow Solve(11, k)$

$Solve(13, k) \rightarrow Solve(12, k)$

$Solve(14, k) \rightarrow Solve(13, k)$

$Solve(15, k) \rightarrow Solve(14, k)$

$Solve(16, k) \rightarrow Solve(15, k)$

$Solve(17, k) \rightarrow Solve(16, k)$

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$Solve(113, k) \rightarrow Solve(112, k)$

$Solve(114, k) \rightarrow Solve(113, k)$

$Solve(115, k) \rightarrow Solve(114, k)$

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