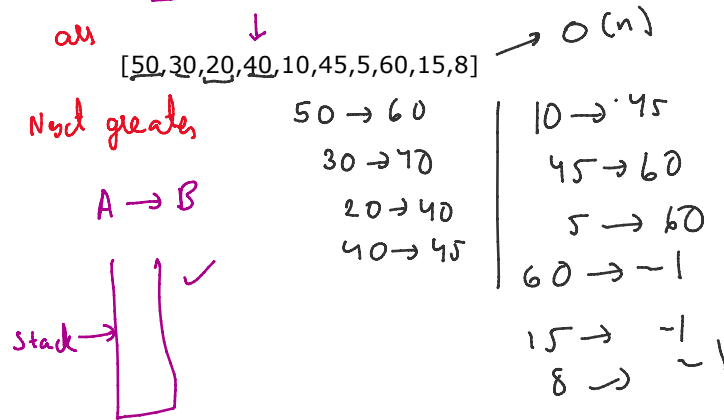
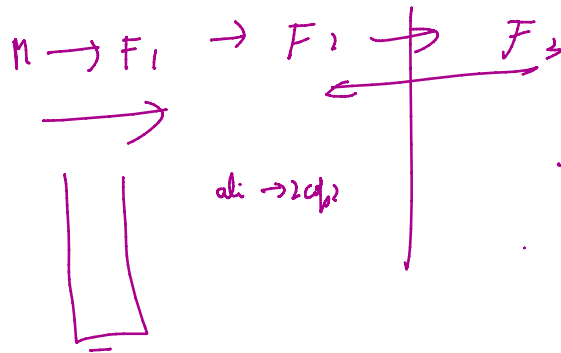


```

public static void Copy(Stack<Integer> A,
Stack<Integer> B) {
    if (A.isEmpty()) {
        return;
    }
    // BP : n S
    // SP : n-1
    int ali = A.pop();
    Copy(A, B);
    B.add(ali);
}

```



60	40	40	45	45	60	60	-	-	-
50	30	20	40	10	45	5	60	15	8

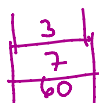
20 → 70
 30 → 70
 10 → 45
 40 → 45



Min Stack

3, 4, 7, 60, 5, 50, 10

Stack → Dynamic s → Min Stack



⇒ min
 m1) Trave x O(n)
 O(n)

3
7
60
5
50
10

$\Rightarrow \text{min}$

M1) Trave $\times O(n)$
 $O(n)$

min \rightarrow ~~10~~ ~~5~~ ~~5~~ 10 M2)

3, 7, 60, 5, 50, 10

3
7
60
5
50
10

min \rightarrow 3

space - min

M2 $\rightarrow O(n)$ space
 $O(1)$ time.

2.5

M3 $\rightarrow O(1)$ time
 $O(1)$ space

0, 3, 7, 60, 5, 50, 10

(0,3) \rightarrow 3
(3,5) \rightarrow 1
7
60
(5,10) \rightarrow 0
50
10

calc min \rightarrow ~~10~~ ~~5~~ ~~5~~ 0

$f(\text{prev}, \text{curr}) = M \leq \text{min}$

1) curr < prev.
curr - prev < 0
2) $2 \cdot \text{curr} - \text{prev} < \text{curr}$

$M = 2 \cdot \text{curr} - \text{prev}$

prev = $2 \cdot \text{curr} - M$

curr = 3 - 9 -- 8 = -1

2. - 9
- 18 + 8 = -10