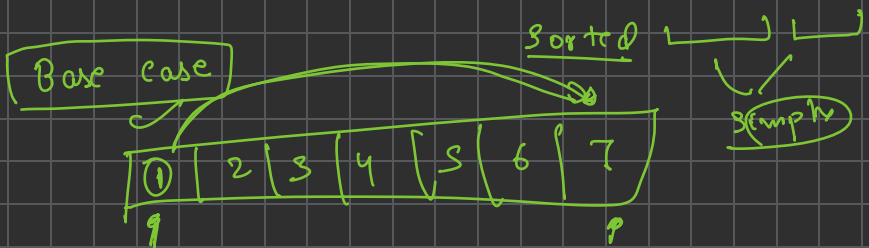


arr[mid] \geq arr[0]

① if Left portion
[move to right side]



arr[0] < arr[n-1]

* rotation

key = 20

0	1	2	3	4	5	6	7	8
30	40	50	60	70	80	10	20	30

Left position

Right position

```

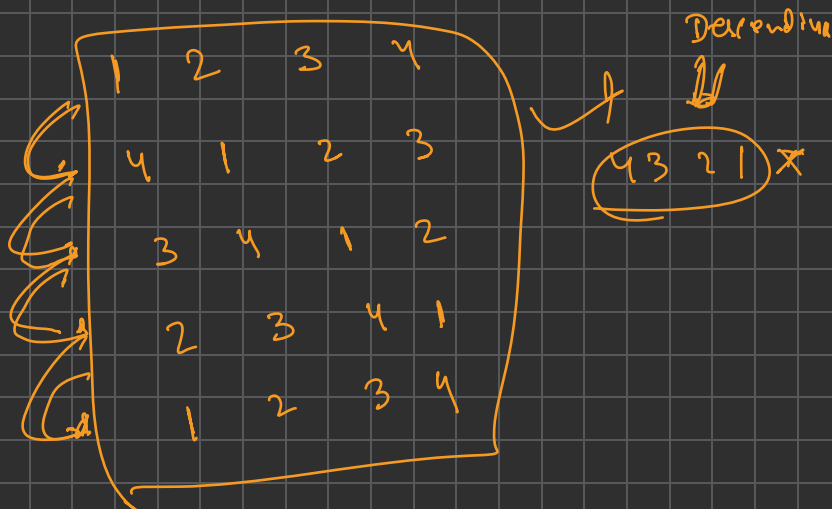
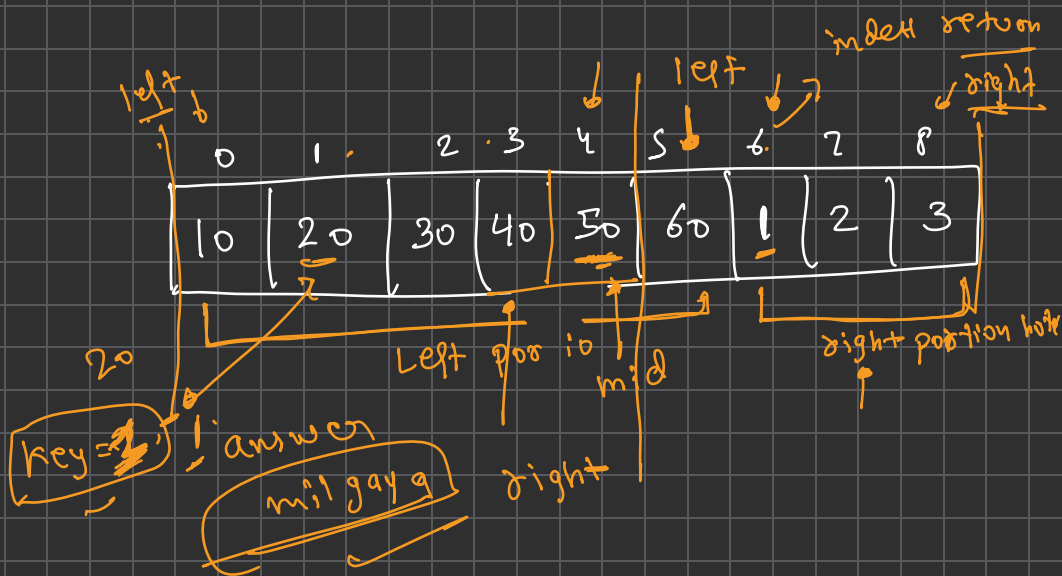
if (arr[mid] >= arr[0])
{
    if (key >= arr[left] &&
        key < arr[mid])
    {
        right = mid - 1;
    }
    else
    {
        left = mid + 1;
    }
}

```

```

{
    if (key > arr[mid]
        && key <= arr[right])
    {
        left = mid + 1;
    }
    else
    {
        right = mid - 1;
    }
}

```

2	4	6	8	9
---	---	---	---	---

$k = 8$ 5

Sorted

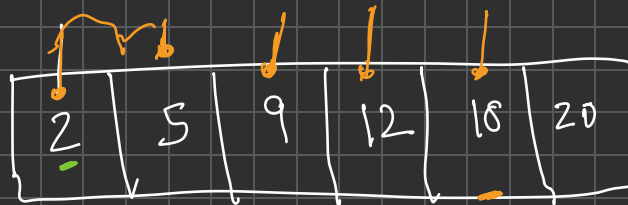
5 pop

① 2 ③ 4 ⑤ 6 ⑦ 8 9 ⑩

$k = 15$

10	20	30
----	----	----

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ 10
⑪ ⑫ ⑬ ⑭ ⑮ ⑯



$K=10$

Missing

sorted form

break apart return

num = ~~10~~ 11 ~~12~~ ~~13~~ 14

1 2 3 4 5 6 7 8 9 10 11 12 13 14
 ✓ ✗ ✗ ✗ ✗ ✗ ✗ ✗ ✗ ✗ ✗ ✗ ✗ ✗

10 = 14
 $i+k = \text{answer}$
 $K=10$
 $O(n)$
 Solution

