

Sorted array:

[10, 20, 30, 45, 67, 89, 94, 99, 102, 105]
 0 1 2 3 4 5 6 7 8 9
 mid 8

mid = $\frac{l+r}{2}$

target = 110

ans = -1

```
if (arr[mid] == target) {
    ans = mid;
} else if (arr[mid] < target) {
    l = mid + 1;
} else if (arr[mid] > target) {
    r = mid - 1;
}
```

sorted
 [1, 1, 1, 1, 2, 2, 3, 3, 3, 3, 4, 4, 4, 5, 6, 6, 6, 7]
 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

target = 3
 ans = 6

20%

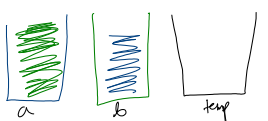
```
if (arr[mid] == target) {
    ans = mid;
} else if (arr[mid] < target) {
    l = mid + 1;
} else if (arr[mid] > target) {
    r = mid - 1;
}
```

Reverse the arr.

[7, 1, 3, 2, 9, 6, 5]
 0 1 2 3 4 5 6

3 2

temp = a
 a = b
 b = temp



[7, 3, 2, 9, 1, 6, 5]
 0 1 2 3 4 5 6
 2 5 [7, 1, 9, 6, 3, 2, 5]
 0 1 2 3 4 5 6

Set 01

[0, 0, 0, 0, 0, 1, 1, 1, 1, 1]

0 1 2 3 4 5 6 7 8 9

```
if (arr[i] == 0) {
    swap(arr[i], arr[j]);
    i++;
    j++;
}
```

Set 01, 2

[0, 0, 0, 1, 1, 1, 1, 2, 2, 2]

```
(arr[i] == 0) {
    swap(arr[i], arr[j]);
    i++;
    j++;
}
```