Kth Missing Positive Number in a Sorted Array 🔖

Difficulty: **Medium**   Accuracy: **53.02%**   Submissions: **31K+**   Points: **4**

Given a sorted array of distinct positive integers **arr[]**, we need to find the **kth** positive number that is missing from arr[].

Examples :

Input: arr[] = [2, 3, 4, 7, 11], k = 5

Output: 9

Explanation: Missing are 1, 5, 6, 8, 9, 10... and 5th missing number is 9.

Input: arr[] = [1, 2, 3], k = 2

Output: 5

Explanation: Missing are 4, 5, 6... and 2nd missing number is 5.

Input: arr[] = [3, 5, 9, 10, 11, 12], k = 2

Output: 2

Explanation: Missing are 1, 2, 4, 6... and 2nd missing number is 2.

Constraints:

« Prev

Next »

```java
1    ⟨...⟩ // } Driver Code Ends
30
31   class Solution {
32       public int kthMissing(int[] arr, int k) {
33           int left = 0, right = arr.length - 1;
34           while (left <= right) {
35               int mid = left + (right - left) / 2;
36               int missingCount = arr[mid] - (mid + 1);
37               if (missingCount < k) {
38                   left = mid + 1;
39               } else {
40                   right = mid - 1;
41               }
42           }
43           return left + k;
44       }
45   }
46
```

Custom Input   Compile & Run   Submit