Given an array of integers with possible duplicates, randomly output the index of a given target number. You can assume that the given target number must exist in the array.

**Note:**  
The array size can be very large. Solution that uses too much extra space will not pass the judge.

**Example:**

int[] nums = new int[] {1,2,3,3,3};

Solution solution = new Solution(nums);

// pick(3) should return either index 2, 3, or 4 randomly. Each index should have equal probability of returning.

solution.pick(3);

// pick(1) should return 0. Since in the array only nums[0] is equal to 1.

solution.pick(1);