Some students are playing in the ground. They all have a unique ID number. Suppose, there are an integer array, sorted ascending order with distinct values which contain students ID number. The array is rotate at unknown pivot index k (0 <= k < array. Length) such that the resulting array is [array[k], array [k+1], ..., array [n-1], array [0], array [1], ..., array [k-1]] (**0-indexed**). For example, [1,2,3,4,5,6,7,8,9] might be rotate at pivot index 3 and the array becomes [4,5,6,7,8,9,1,2,3].

Given the array **after** the rotation and an integer x, return the index of x if it is in the array, or *-*1 if it is not in the array.