**Algorithm** BinarySearch(array, first, last):  
  
 **if** (first < last) :  
  
 mid = (first + last) / 2  
 **if** (-1 < mid - 1 && array[mid - 1] <= array[mid] && mid + 1 < array.**length** && array[mid + 1] <= array[mid]) :  
 **return** array[mid]  
   
 **if** (-1 < mid - 1 && mid + 1 < array.**length** && array[mid - 1] > array[mid + 1]) :  
 last = mid - 1  
 **else if** (mid + 1 < array.**length** ) :  
 first = mid + 1  
  
  
 **if** (array[0] < array[array.**length** - 1]):

**return** array[array.**length** - 1]  
 **else:**

**return** array[0]

n = input()

arr[n]  
  
**for** (i = 0; i < n; i++):  
 arr[i] = input ()  
  
  
print(BinarySearch(arr, 0, n - 1))

پیچیدگی زمانی BinarySearch() :

T(n) = T(n/2) + f (n), O(f(n)) <

T(n)