We are provided with an array containing hypothetical infinite value as well. Our aim is to find the position of first infinite element.

# Binary Search

array → [20, -30, 10, 5, 7, 0, 29, ∞, ∞, ∞, ∞, ----]

0 1 2 3 4 5 6 7 8 9 10 ↓ n-1

n-element

∞

Problem → Position of first infinite element

output → 7

Linear Search → for loop

if arr(i) == 'inf'

↳ return i

⇒ O(n)

Binary Search → mid = i + (j-i)//2

if arr[mid] != 'inf'

↳ Right side of the mid

if arr(mid) == 'inf'

Previous index element → != '∞'

↳ return mid

otherwise

↳ Left side of the mid

Note → Array (logically apply binary search)

↓↓

(Left side & right side movement)