

array = [1, 3, 5, 6, 7] target = 8

Time
 $n \log n$

Space
 n

1. Sort \Rightarrow [1, 3, 5, 6, 7] $n \log n, n$
2. t-sort \Rightarrow [7, 6, 5, 3, 1] \rightarrow reverse.
3. Check for same number using two arrays $\leftarrow O(n)$

\Rightarrow Check if two ^{sorted} arrays have the same number.

$\rightarrow a = [1, 3, 5, 6, 7]$
 \uparrow
 n

$b = [2, 4, 4, 5, 9, 10]$
 \uparrow
 n

~~$i = \text{len}(a)$~~
 ~~$j = 0, 0$~~

~~if $a[i] < b[j]$~~

while $i < \text{len}(a)$ and $j < \text{len}(b)$

if $a[i] < b[j]$:

$i++$

if $a[i] > b[j]$

$j++$

if $a[i] == b[j]$

return True

return False.

\rightarrow Time $\Rightarrow n \log(n)$

Space $\Rightarrow n$

Second try :-

Time $\rightarrow O(n)$

target = 8 array = [1, 3, 5, 9]

hash = 1 \rightarrow [0]

3 \rightarrow [1]

5 \rightarrow [2]

9 \rightarrow [3]

t-array = [7, 5, 3, -1]

~~then~~

Pseudo code

\rightarrow array = a

\rightarrow t-a = s-a

\rightarrow put a in a hashmap with indices

\rightarrow add (t-a) to hashmap with indices

\rightarrow if any value in hashmap has 2 elements
and the ~~number~~ of elements are not
same then return those indices.