

- Variables

1. array = {1,2,3,1,5,6,1,8,9,1}

2. n = 10

3. key = 1

4. segment size = 3

=> **Segments** :

{1, 2, 3}

{1, 5, 6}

{1, 8, 9}

{1}

Last Segment **INCOMPLETE** b/c

$n \% \text{seg_size}$

$10 \% 3 \neq 0$

- Loop while ($i < n$)

1. i = 0

Segment : {1,2,3}

PERFORM LINEAR SEARCH for key

if found : continue

else : return **false**

2. i = 3

Segment : {1,5,6}

PERFORM LINEAR SEARCH for key

if found : continue

else : return **false**

3. i = 6

Segment : {1,8,9}

PERFORM LINEAR SEARCH for key

if found : continue

else : return **false**

4. i = 9

Segment : {1}

$i + \text{seg_size} > n$

$9 + 3 = 12 > 10$

break

- Last segment **may** remain unchecked if **$i + \text{seg_size} > n$**

$i = n - \text{seg_size}$

i = 9

Segment : {1}

PERFORM LINEAR SEARCH for key

if found : continue

- if ($i == n$) \Rightarrow the last seg did not contain key b/c if it did it would **break before $i = n$**
return **false**
- else : return **true**