

Starting arr: [1, 2, 4, 5, 3]

Store the value of $\text{arr}[4] = 3$

1 2 4 5 3

1 2 4 5 5

1 2 4 4 5

1 2 3 4 5

Test from: $\text{arr}[\text{arr.length} - 1]$

```
for (int i =  
i = arr[arr.length] - 1;  
boolean found = false;  
while (!found) {  
    if (arr[i] < arr[i-1])  
        found = true;  
    i--;  
}
```

0 1 2 3 4 look for proper index, must store this value

2 4 6 8 3

Compare $3 < 8$

$\text{arr}[4] < \text{arr}[3]$ true

$\text{arr}[3] = \text{arr}[4]$ move $[n-1]$ over 1 to right

$\text{arr}[3] < \text{arr}[2]$ true

$\text{arr}[2] = \text{arr}[3]$

$\text{arr}[2] < \text{arr}[1]$ true

$\text{arr}[1] = \text{arr}[2]$

$\text{arr}[1] < \text{arr}[0]$ false

$\text{arr}[1] = \text{value} // 3$

0 1 2 3 4
2 4 6 8 8

2 4 6 6 8

2 4 4 6 8

2 3 4 6 8

0	1	2	3	4	
2	4	6	8	3	
2	4	6	8	8	$8 > 3$
2	4	6	6	8	$6 > 3$
2	4	4	6	8	$4 > 3$
2	3	4	6	8	$2 < 3$

int n = 5
n-- = 4 = n

arr[4] < arr[4-1]

0 1 2 3 4
2 4 6 8 3
2 4 6 8 8

if n = 4

value = 3

arr[4] < arr[3] = $3 > 8 = \text{false}$
~~3 < 8~~

0 1 2 3 4
2 4 6 8 3
2 4 6 8 8

arr[4] = arr[3]
arr[3] < arr[2] = $8 > 6$
~~8 < 6~~

2 4 6 6 8

arr[3] = arr[2]
arr[2] < arr[1] = $6 < 4$
~~6 < 4~~