

## Search Lab (91-94)

Original array:

Element	-19	1	4	9	18	21	25	26	34	40	50
Index	0	1	2	3	4	5	6	7	8	9	10

I. Target: 4

- Step #1:

-19	1	4	9	18	21	25	26	34	40	50
0	1	2	3	4	5	6	7	8	9	10

Variables	Value
Start	0
End	10
Mid	5
a[mid]	21

- Step #2:

-19	1	4	9	18
0	1	2	3	4

Variables	Value
Start	0
End	4
Mid	2
a[mid]	4

Found 4 at index 2

II. Target: 34

- Step #1:

-19	1	4	9	18	21	25	26	34	40	50
0	1	2	3	4	5	6	7	8	9	10

Variables	Value
Start	0
End	10
Mid	5

a[mid]	21
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- Step #2:

25	26	34	40	50
6	7	8	9	10
Variables		Value		
Start		6		
End		10		
Mid		8		
a[mid]		34		

Found 34 at index 8

### III. Target: 224

- Step #1:

-19	1	4	9	18	21	25	26	34	40	50
0	1	2	3	4	5	6	7	8	9	10
Variables	Value									
Start	0									
End	10									
Mid	5									
a[mid]	21									

- Step #2:

25	26	34	40	50
6	7	8	9	10
Variables	Value			
Start	6			
End	10			
Mid	8			
a[mid]	34			

- Step #3:

40	50
9	10
Variables	Value
Start	9
End	10
Mid	9
a[mid]	40

- Step #3:

50	
10	
Variables	Value
Start	10
End	10
Mid	10
a[mid]	50

Target 224 doesn't exist in the array.