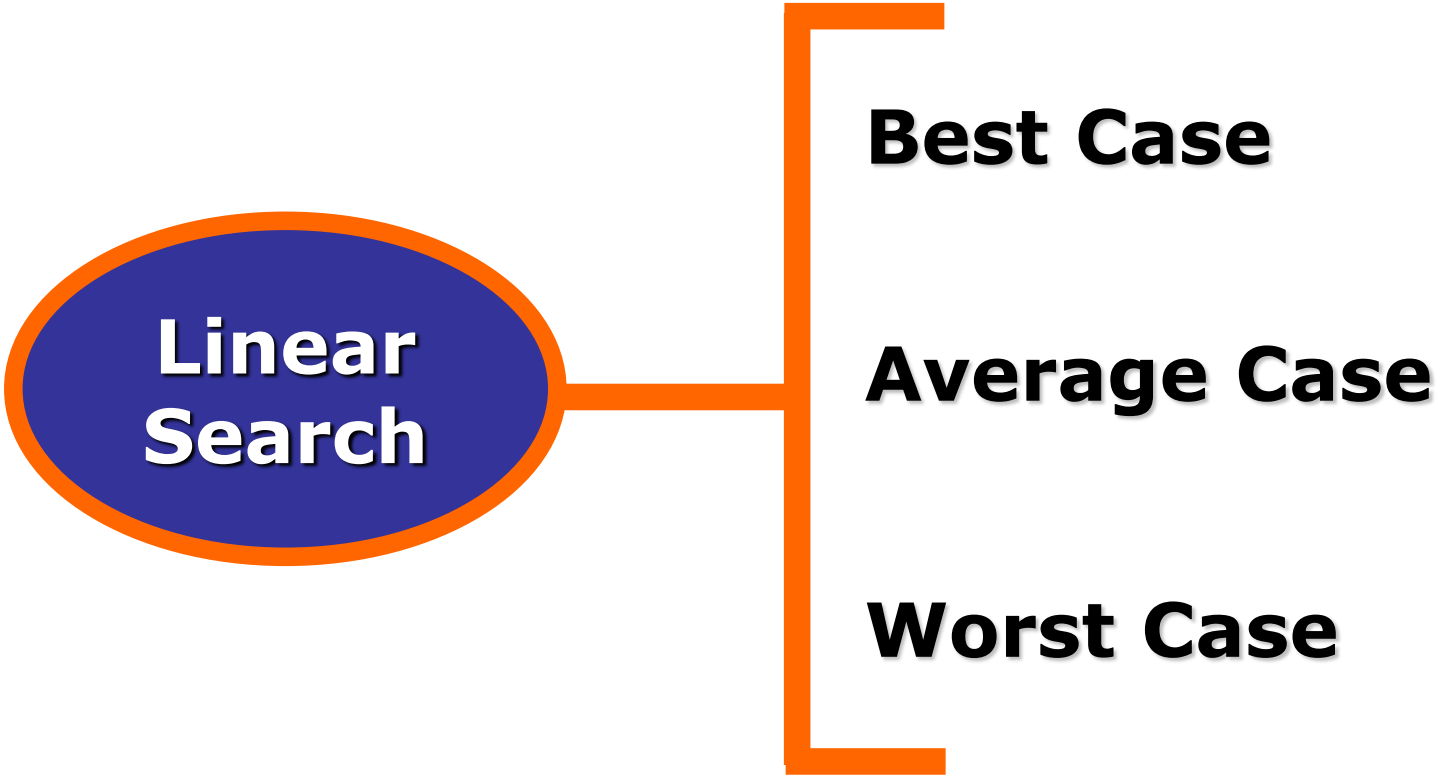
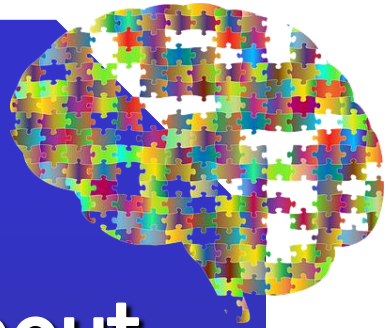
Algorithm

Linear Search

Time Complexity

Linear Search – Time Complexity





Let's think about...
Best Case

Linear Search – Time Complexity

Best Case

```
[3, 7, 9, 1, 4, 6]
```

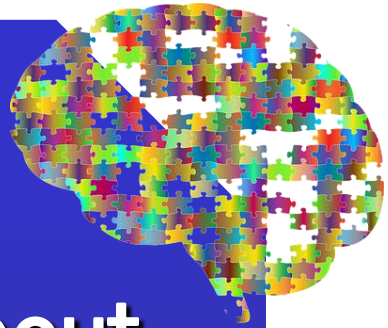
Linear Search – Time Complexity

How many comparisons?

```
[3, 7, 9, 1, 4, 6]
```

Best-Case Time Complexity

O(1)



Let's think about... Average Case

Linear Search – Time Complexity

Average Case

```
[3, 7, 9, 1, 4, 6]
```

Linear Search – Time Complexity

How many comparisons?

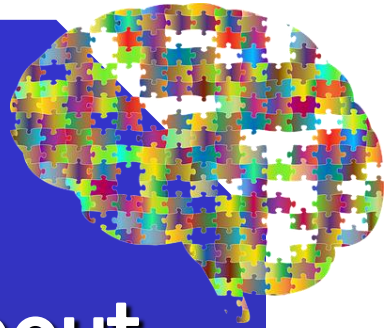
```
[3, 7, 9, 1, 4, 6]
```

Average-Case Time Complexity

O(n/2)

Average-Case Time Complexity

O(n)



Let's think about... Worst Case

Linear Search – Time Complexity

Worst Case

```
[3, 7, 9, 1, 4, 6]
```

Linear Search – Time Complexity

How many comparisons?

```
[3, 7, 9, 1, 4, 6]
```

Worst-Case Time Complexity

O(n)

Linear Search – Time Complexity

Linear Search
Time Complexity

Best Case: O(1)

Average Case: O(n)

Worst Case: O(n)

Time to Practice!