

Algorithm

Selection Sort
Time Complexity





Selection Sort

Selection Sort

Best Case

Average Case

Worst Case



Let's think about...
Best Case





Selection Sort

**Best
Case**

**Already
Sorted**

[1, 2, 3, 6, 8]



Selection Sort

How many comparisons?

[1, 2, 3, 6, 8]



Selection Sort

Best-Case Time Complexity

$O(n^2)$

A large blue octagonal shape is centered on the slide. Inside the octagon, the text "Let's think about... Average Case" is written in white. To the top right of the octagon is a brain shape composed of many small, colorful puzzle pieces. To the bottom left of the octagon is a circular icon with a yellow-to-orange gradient border, containing the Python logo (two interlocking snakes, one blue and one yellow).

Let's think about...
Average Case



Selection Sort

**Average
Case**

[1, 2, 8, 3, 4]



Let's think about...
Worst Case





Selection Sort

**Worst
Case**

[8, 6, 3, 2, 1]



Selection Sort

Average-Case & Worst-Case Time Complexities

$O(n^2)$





Time to Practice!

