Types of Analysis

1. **Worst Case** - provides an upper bound on running time guaranteeing that the algorithm would not run longer.

2. **Average Case** - provides a prediction about running time assuming an input is random. More realistic but hard to compute!

3. **Best Case** - provides a lower bound on running time on input for which an algorithm runs the fastest.
We use the predominant term (degree of the polynomial) to express running time.

Ex.

$C'n^2$ where $C'C = C_2 + C_3$

90% of the running time is spent on & 10% of the code!