Best, Average and Worst Cases

Example-1 Simple function with same order of growth for every input.

```
int getSum(int arr[], int n)
{
    int sum=0;
    for (int i=0; i<n; i++)
        sum=sum + arr[i];
    return sum;
}
```

Time taken : $C_1 n + C_2$
Order of growth : n

Example-2 Multiple orders of growths

Best case : Constant
Average case : Linear (Under the assumption that even and odd cases are equally likely)

Worst case : Linear

```
int getsum(int arr[], int n)
{
    if (n%2==0)
        return 0;
```

Example

```
    int sum = 0;
    for (int i=0 ; i<n; i++)
        sum = sum + arr[i];
    return sum;
}
```