Activity 6

1. **How do we analyze algorithms and what is the importance of analyzing the algorithms?**

* We analyze the algorithms by the following features:
* Correctness
* Efficiency
* Growth rate
* Best, worst, and average case behaviors
* Big-O
* It is important to analyze the algorithms ro make it more space and time efficient

1. **Browse online about the best case, average case, and the worst case of algorithms and give your explanations with an example.**

* While an algorithm for liner search exists with an array “a” and size “n”, and the “item” we are searching for is located in the very 1st position of the array it is considered to be a best case algorithm.

Example:

int search(int a, int n, int item) {

int i;

for (i = 0; i < n; i++) {

if (a[i] == item) {

return a[i]

}

}

return -1

}