LINEAR SEARCH

Best case: O(1)

|  |  |  |  |
| --- | --- | --- | --- |
| N | Count/n | Count/n2 | Count/n3 |
| 10 | 1/10 | 1/10^2 | 1/10^3 |
| 100 | 1/100 | 1/100^2 | 1/100^3 |
| 500 | 1/500 | 1/500^2 | 1/500^3 |
| 1000 | 1/1000 | 1/1000^2 | 1/1000^3 |

|  |  |  |  |
| --- | --- | --- | --- |
| N | Count/n | Count/n2 | Count/n3 |
| 10 | 1 | 1/10 | 1/10^2 |
| 100 | 1 | 1/100 | 1/100^2 |
| 500 | 1 | 1/500 | 1/500^2 |
| 1000 | 1 | 1/1000 | 1/1000^2 |

Worst Case: O

Selection Sort:Thetha(n^2)

|  |  |  |  |
| --- | --- | --- | --- |
| N | Count/n | Count/n2 | Count/n3 |
| 10 | 4.5 | 4.5/10 | 4.5/10^2 |
| 100 | 49.5 | 49.5/100 | 49.5/100^2 |
| 500 | 249.5 | 249.5/500 | 249.5/500^2 |
| 1000 | 499.5 | 499.5/1000 | 499.5/1000^2 |

Tower of Hanoi:Thetha(2^n)

|  |  |  |  |
| --- | --- | --- | --- |
| N | Count/n | Count/n2 | Count/n3 |
| 10 | 102.3 | 10.23 | 1.023 |
| 100 |  |  |  |
| 500 |  |  |  |
| 1000 |  |  |  |