Table of Contents

[THEORETICAL ANALYSIS 2](#_Toc119570455)

[Basic operation is the comparison marked as (1) 2](#_Toc119570456)

[Basic operations are the three assignments marked as (2) 2](#_Toc119570457)

[Basic operation is two assignments marked as (3) 2](#_Toc119570458)

[Basic operations are the two loop incrementations marked as (4) 2](#_Toc119570459)

[Basic operation is the assignment marked as (5) 2](#_Toc119570460)

[IDENTIFICATION OF BASIC OPERATION(S) 2](#_Toc119570461)

[REAL EXECUTION 2](#_Toc119570462)

[Best Case 2](#_Toc119570463)

[Worst Case 3](#_Toc119570464)

[Average Case 3](#_Toc119570465)

[COMPARISON 3](#_Toc119570466)

[Best Case 3](#_Toc119570467)

[Worst Case 4](#_Toc119570468)

[Average Case 4](#_Toc119570469)

## THEORETICAL ANALYSIS

### Basic operation is the comparison marked as (1)

#### Analyze B(n)

#### Analyze W(n)

#### Analyze A(n)

### Basic operations are the three assignments marked as (2)

#### Analyze B(n)

#### Analyze W(n)

#### Analyze A(n)

### Basic operation is two assignments marked as (3)

#### Analyze B(n)

#### Analyze W(n)

#### Analyze A(n)

### Basic operations are the two loop incrementations marked as (4)

#### Analyze B(n)

#### Analyze W(n)

#### Analyze A(n)

### Basic operation is the assignment marked as (5)

#### Analyze B(n)

#### Analyze W(n)

#### Analyze A(n)

## IDENTIFICATION OF BASIC OPERATION(S)

*Here, state clearly which operation(s) in the algorithm must be the basic operation(s). Also, you should provide a simple explanation about why you have decided on the basic operation you choose. (1-3 sentences)*

## REAL EXECUTION

### Best Case

|  |  |
| --- | --- |
| N Size | Time Elapsed |
| 1 |  |
| 5 |  |
| 10 |  |
| 25 |  |
| 50 |  |
| 75 |  |
| 100 |  |
| 150 |  |
| 200 |  |
| 250 |  |

### Worst Case

|  |  |
| --- | --- |
| N Size | Time Elapsed |
| 1 |  |
| 5 |  |
| 10 |  |
| 25 |  |
| 50 |  |
| 75 |  |
| 100 |  |
| 150 |  |
| 200 |  |
| 250 |  |

### Average Case

|  |  |
| --- | --- |
| N Size | Time Elapsed |
| 1 |  |
| 5 |  |
| 10 |  |
| 25 |  |
| 50 |  |
| 75 |  |
| 100 |  |
| 150 |  |
| 200 |  |
| 250 |  |

## COMPARISON

### Best Case

#### Graph of the real execution time of the algorithm

#### Graph of the theoretical analysis when basic operation is the operation marked as (1)

#### Graph of the theoretical analysis when basic operation is the operation marked as (2)

#### Graph of the theoretical analysis when basic operation is the operation marked as (3)

#### Graph of the theoretical analysis when basic operation is the operation marked as (4)

#### Graph of the theoretical analysis when basic operation is the operation marked as (5)

#### Comments

### Worst Case

#### Graph of the real execution time of the algorithm

#### Graph of the theoretical analysis when basic operation is the operation marked as (1)

#### Graph of the theoretical analysis when basic operation is the operation marked as (2)

#### Graph of the theoretical analysis when basic operation is the operation marked as (3)

#### Graph of the theoretical analysis when basic operation is the operation marked as (4)

#### Graph of the theoretical analysis when basic operation is the operation marked as (5)

#### Comments

### Average Case

#### Graph of the real execution time of the algorithm

#### Graph of the theoretical analysis when basic operation is the operation marked as (1)

#### Graph of the theoretical analysis when basic operation is the operation marked as (2)

#### Graph of the theoretical analysis when basic operation is the operation marked as (3)

#### Graph of the theoretical analysis when basic operation is the operation marked as (4)

#### Graph of the theoretical analysis when basic operation is the operation marked as (5)

#### Comments