**Table of Contents**

[THEORETICAL ANALYSIS 2](#_gjdgxs)

[*Basic operation is the comparison marked as (1) 2*](#_30j0zll)

[*Basic operations are the two assignments marked as (2) 2*](#_1fob9te)

[*Basic operations are the two comparisons marked as (3) 2*](#_3znysh7)

[*Basic operations are the three assignments marked as (4) 2*](#_2et92p0)

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

[REAL EXECUTION 2](#_3dy6vkm)

[*Best Case 2*](#_1t3h5sf)

[*Worst Case 3*](#_4d34og8)

[*Average Case 3*](#_2s8eyo1)

[COMPARISON 4](#_17dp8vu)

[*Best Case 4*](#_3rdcrjn)

[*Worst Case 4*](#_26in1rg)

[*Average Case 4*](#_lnxbz9)

## THEORETICAL ANALYSIS

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

#### Analyze B(n)

#### Analyze W(n)

#### Analyze A(n)

### Basic operations are the two loop increments marked as (2)

#### Analyze B(n)

#### Analyze W(n)

#### Analyze A(n)

### Basic operations are the four assignments marked as (3)

#### Analyze B(n)

#### Analyze W(n)

#### Analyze A(n)

### Basic operations are the four assignments marked as (4)

#### 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 |  |
| 20 |  |
| 30 |  |
| 40 |  |
| 50 |  |
| 60 |  |
| 70 |  |
| 90 |  |
| 100 |  |
| 120 |  |
| 130 |  |
| 140 |  |
| 150 |  |
| 160 |  |
| 170 |  |

### Worst Case

| N Size | Time Elapsed |
| --- | --- |
| 1 |  |
| 5 |  |
| 10 |  |
| 20 |  |
| 30 |  |
| 40 |  |
| 50 |  |
| 60 |  |
| 70 |  |
| 90 |  |
| 100 |  |
| 120 |  |
| 130 |  |
| 140 |  |
| 150 |  |
| 160 |  |
| 170 |  |

### Average Case

| N Size | Time Elapsed |
| --- | --- |
| 1 |  |
| 5 |  |
| 10 |  |
| 20 |  |
| 30 |  |
| 40 |  |
| 50 |  |
| 60 |  |
| 70 |  |
| 90 |  |
| 100 |  |
| 120 |  |
| 130 |  |
| 140 |  |
| 150 |  |
| 160 |  |
| 170 |  |

## 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)

#### 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)

#### 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)

#### Comments