# CS 4097D Object-Oriented Systems Lab: Assignment 1

1. Write a Java program that accepts the number and its exponent and returns the power of the number.

### **Sample Input**

Enter the base of the number: 3

Enter the exponent: 4

### Sample Output

81

2. Write a Java program that accepts two numbers, "a" and "b" from the user input and swap the numbers without using a third variable

### **Sample Input**

a=25

b=40

### Sample Output

a = 40

b=25

3. Write a Java program that accepts a number and find the number of digits in the given number.

### **Sample Input**

34320

#### Sample Output

5

4. Write a Java program that accepts a number and returns the reverse of that number.

#### **Sample Input**

5432

#### **Sample Output**

2345

5. Write a Java program that accepts an integer array of size "N" from the user as input and prints the array in sorted order (Descending order). Write your sorting function.

#### **Sample Input**

Size of the array, N=5

18

7

25

33

1

### **Sample Output**

33 25 18 7 1

6. Write a Java program that accepts a number and returns true when the number is Palindrome and false otherwise.

Sample Input 1 Sample Input 2

343 1256

Sample Output 1 Sample Output 2

True False

7. Write a Java program that accepts N as user input and finds the Fibonacci series of N numbers.

## **Sample Input**

С

### **Sample Output**

0 1 1 2 3 5 8 13 21