1) Write a program to print numbers from 1 to 10.

Program :

```
package assignment4;
public class PrintNumbers {
public static void main(String[] args) {
for (int i = 1; i <= 10; i++) {
System.out.print(i+" ");
}
}
}
```

Output :

1 2 3 4 5 6 7 8 9 10

2) Write a program to calculate the sum of first 10 natural number.

Program:

```
package assignment4;
public class NaturalNumbers {
public static void main(String[] args) {
int sum = 0;
for (int i = 1; i <= 10; i++) {
sum += i;
}
System.out.println("Sum of first 10 natural number is = " + sum);
}
}
```

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Output :

Sum of first 10 natural number is = 55

3) Write a program that prompts the user to input a positive integer. It should then print the multiplication table of that number.

Program :

```
package assignment4;
import java.util.Scanner;
public class MultiplicationTable {
public static void main(String[] args) {
Scanner scanner = new Scanner(System.in);
System.out.println("Enter value : ");
int num = scanner.nextInt();
for (int i = 1; i <= 10; i++) {
System.out.println(num + " * " + i + " = " + num * i);
}
System.out.println();
}
}
```

Output :

Enter value :

9

9 * 1 = 9

9 * 2 = 18

9 * 3 = 27

9 * 4 = 36

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9 * 5 = 45

9 * 6 = 54

9 * 7 = 63

9 * 8 = 72

9 * 9 = 81

9 * 10 = 90

4) Write a program to find the factorial value of any number entered through the keyboard.

Program :

```
package assignment4;
import java.util.Scanner;
public class FactorialValue {
public static void main(String[] args) {
int count = 1;
Scanner scanner = new Scanner(System.in);
System.out.println("enter the value >> ");
float num = scanner.nextFloat();
for (int a = 1; a <= num; a++) {
count = count * a;
}
System.out.println("Factorial value is >> " + count);
}
}
```

Output :

enter the value >>

Factorial value is >> 5040

5) Two numbers are entered through the keyboard. Write a program to find the value of one number raised to the power of another. (Do not use Java built in method).

Program :

```
package assignment4;
import java.util.Scanner;
public class Numberraised {
public static void main(String[] args) {
int d = 0, base = 0;
Scanner scanner = new Scanner(System.in);
System.out.println("enter the value : ");
base = scanner.nextInt();
System.out.println("enter the power value : ");
d = scanner.nextInt();
long result = 1;
while (d != 0) {
result *= base;
d--;
}
System.out.println("power of " + base + " is " + result);
}
}
```

Output :

enter the value :

7

enter the power value :

3

power of 7 is 343

6) Write a program that prompts the user to input an integer and then outputs the number with the digits reversed. For example, if the input is 12345, the output should be 54321.

Program :

```
package assignment4;
import java.util.Scanner;
public class ReverseOrderNumber {
public static void main(String[] args) {
int num, reverse = 0;
Scanner scanner = new Scanner(System.in);
System.out.println("Enter the number correct order :");
num = scanner.nextInt();
while (num != 0) {
reverse = reverse * 10 + num % 10;
num = num / 10;
}
System.out.println("reverse number is : " + reverse);
}
}
```

Output :

Enter the number correct order :

12345

reverse number is : 54321

7) Write a program that reads a set of integers, and then prints the sum of even and odd integers.

Program :

```
package assignment4;
import java.util.Scanner;
public class Integeroddandeven {
public static void main(String[] args) {
int number, i, even = 0, odd = 0;
Scanner scanner = new Scanner(System.in);
System.out.print("Enter a value : ");
number = scanner.nextInt(); // 5
for (i = 1; i <= number; i++) // 1<=5
{
if (i % 2 == 0) // 1%2=1.false
// 2%2=0...true
{
even = even + i; // 0+2=2
} else {
odd = odd + i; // 0+1=1
}
}

System.out.println("\n The Sum of Even Numbers : " + even);
```

```
System.out.println("\n The Sum of Odd Numbers :" + odd);
}
}
```

Output :

Enter a value : 6

The Sum of Even Numbers : 12

The Sum of Odd Numbers :9

8) Write a program that prompts the user to input a positive integer. It should then output a message indicating whether the number is a prime number.

Program :

```
package assignment4;
import java.util.Scanner;
public class Positiveinteger {
public static void main(String[] args) {
int num, i;
Scanner scanner = new Scanner(System.in);
System.out.print("Enter a Number : ");
num = scanner.nextInt();
for (i = 2; i <= num / 2; ++i)
if (num % i == 0) {
System.out.println(num + " is not a prime number");
break;
} else {
System.out.println(num + " is a prime number");
 Assignment - 4
}
```

```
}
}
```

Output :

```
Enter a Number : 5
5 is a prime number
Enter a Number : 12
12 is not a prime number
```

9) Write a program to calculate HCF of Two given number.

Program :

```
package assignment4;
import java.util.Scanner;
public class HCF {
public static void main(String[] args) {
int number, newNum, hcf = 0;
Scanner scanner = new Scanner(System.in);
System.out.println("Enter the value : ");
number = scanner.nextInt();
System.out.println("Enter one more value : ");
newNum = scanner.nextInt();
for (int start = 1; start <= number || start <= newNum; start++) {
if (number % start == 0 && newNum % start == 0)
hcf = start;
}
System.out.println("HCF is " + hcf);

}
```

```
}
```

Output :

```
Enter the value :
6
Enter one more value :
2
HCF is 2
```

10) Write a do-while loop that ask the user to enter two numbers. The numbers should be added and the sum displayed. The loop should ask the user whether he or she wishes to perform the operation again, If so, the loop should repeat; otherwise it should terminate.

Program :

```
package assignment4;
import java.util.Scanner;
public class Do_whileloop {
public static void main(String[] args) {
int num1 = 0, num2 = 0, result = 0;
String choice;
Scanner scanner = new Scanner(System.in);
do {
System.out.print("Enter the first value: ");
num1 = scanner.nextInt();
System.out.print("Enter the second value: ");
num2 = scanner.nextInt();
result = result + num1 + num2;
```

```
System.out.print("Press yes for continue and no for stop.");
choice = scanner.next();
} while (choice.equalsIgnoreCase("yes"));
System.out.println("sum of the numbers: " + result);
}
}
```

Output :

```
Enter the first value: 5
Enter the second value: 7
Press yes for continue and no for stop.yes
Enter the first value: 77
Enter the second value: 44
Press yes for continue and no for stop.no
sum of the numbers: 133
```

11) Write a program to entered a numbers till the user wants and at the end it should display the count of positive, negative and zeros entered.

Program :

```
package assignment4;
import java.util.Scanner;
public class CountofNegativePositive {
public static void main(String[] args) {
Scanner scanner = new Scanner(System.in);
int posCount = 0, negCount = 0, zeroCount = 0;
char choice;
for (int start = 1; start > 0; start++) {
```

```
System.out.print("Enter the number: ");
int number = scanner.nextInt();
if (number > 0)
posCount++;
else if (number < 0)
negCount++;
else
zeroCount++;
System.out.print("enter yes to continue or no to stop.");
choice = scanner.next().charAt(0);
if (choice == 'n')
break;
else if (choice == 'y')
continue;
}
System.out.println("positive count : " + posCount);
System.out.println("negative count : " + negCount);
System.out.println("zero count : " + zeroCount);
}
}
```

Output :

```
Enter the number: 7
enter yes to continue or no to stop.yes
Enter the number: -8

enter yes to continue or no to stop.yes
Enter the number: 3
enter yes to continue or no to stop.yes
Enter the number: -6
enter yes to continue or no to stop.yes
Enter the number: 0
```

enter yes to continue or no to stop.no

positive count : 2

negative count : 2

zero count : 1

12) Write a program to entered a numbers till the user wants and at the end

the program should display the largest and smallest numbers entered.

Program :

```
package assignment4;
import java.util.Scanner;
public class LargestSmallestNumber {
public static void main(String[] args) {
int number;
int size;
int large = 0;
int small = 0;
Scanner scanner = new Scanner(System.in);
System.out.println("How many values you want to ckeck : ");
size = scanner.nextInt();
System.out.print("Enter the number: ");
for (int i = 1; i <= size; i++) {
 Assignment - 4
number = scanner.nextInt();
if (number > large) {
large = number;
}
if (number < small) {
small = number;
```

```
}
}
System.out.println("Largest number is : " + large);
System.out.println("Smallest number is : " + small);
}
}
```

Output :

```
How many values you want to ckeck :
3
Enter the number: 0
-7
8
Largest number is : 8
Smallest number is : -7
```