

### 1. Find the Factorial of the given number

Program:

```
public class Factorial {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the number");
        int n = sc.nextInt();
        int factorial=1;
        for(int i=1;i<=n;i++)
        {
            factorial= factorial*i;
        }
        System.out.println(factorial);
    }
}
```

Output:

```
Enter the number
5
120
```

### 2. Find the reverse of the number

Program:

```
public class ReverseTheNumber {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the number");
        int n = sc.nextInt();
        int a,i=0,j=0;
        a=n;
        while(a>0) {
            i=a%10;
            j=(j*10)+i;
            a=a/10;
        }
        System.out.println("The reverse number is "+j);
    }
}
```

Output:

```
Enter the number
12345
The reverse number is 54321
```

### 3. Check whether the number is palindrome or not

Program:

```
public class Palindrome {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the number");
        int n = sc.nextInt();
        int a,i=0,j=0;
        a=n;
        while(a>0) {
            i=a%10;
            j=(j*10)+i;
            a=a/10;
        }
        if(n==j) {
            System.out.println("It is panlidrome");
        }
        else {
            System.out.println("It is not a panlindrome");
        }
    }
}
```

Output:

Enter the number  
11  
It is panlidrome

4. Check whether the number is amstrong or not

Program:

```
public class Amstrong{
public static void main(String[] args) {
Scanner sc=new Scanner(System.in);
System.out.println("Enter the number");
int n = sc.nextInt();
int a,i=0,j=0;
a=n;
while(a>0) {
i=a%10;
j=(i*i*i)+j;
a=a/10;
}
if(n==j) {
System.out.println("It is amstrong");
}
else {
System.out.println("It is not a amstrong");
}
}
}
```

Output:

Enter the number  
153  
It is amstrong

5. Print the amstrong number available between 0 to 1000

Program:

```
public class Amstrong{
public static void main(String[] args) {
for (int n = 1; n <= 1000; n++) {
int a, i = 0, j = 0;
a = n;
while (a > 0) {
i = a % 10;
j = j + (i * i * i);
a = a / 10;
}
if (n == j) {
System.out.println(n);
}
}
}
}
```

Output:

1  
153  
370  
371  
407

6. To print the palindrome available between 0 to 100

Program:

```
public class Palindrome {
public static void main(String[] args) {
for (int n = 1; n <= 100; n++) {
int a, i = 0, j = 0;
```

```
a = n;
while (a > 0) {
    i = a % 10;
    j = (j * 10) + i;
    a = a / 10;
}
if (n == j) {
    System.out.println(n);
}
}
```

Output:

```
1
2
3
4
5
6
7
8
9
11
22
33
44
55
66
77
88
99
```

7. Print the count of the given number

Program:

```
public class CountOfNumber{
    public static void main(String[] args) {
        int n,i=0;
        System.out.println("Enter a number");
        Scanner get=new Scanner(System.in);
        n=get.nextInt();
        while(n>0)
        {
            n=n/10;
            i++;
        }
        System.out.println("No of digits present: "+i);
    }
}
```

Output:

```
Enter a number
12345
No of digits present: 5
```

8. Find the Sum of the digit

Program:

```
public class SumOfDigits{
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the number");
        int n = sc.nextInt();
        int a,i=0,j=0;
        a=n;
        while(a>0) {
            i=a%10;
            j=j+i;
        }
```

```
a=a/10;
}
System.out.println("Sum of the digits "+j);
}
}
```

Output:

Enter the number

123

Sum of the digits 6

#### 9.Swap of two number using third variable

Program:

```
public class Swap{
public static void main(String[] args) {
int a, b, c;
Scanner sw = new Scanner(System.in);
System.out.println("The numbers are");
a = sw.nextInt();
b = sw.nextInt();
c = a;
a = b;
b = c;
System.out.println("Swapping numbers are");
System.out.println(a);
System.out.println(b);
}
}
```

Output:

The numbers are

12

24

Swapping numbers are

24

12

#### 10.Swap of two variable without using third variable

Program:

```
public class SwapTwoNumber{
public static void main(String[] args) {
int a, b;
Scanner sw = new Scanner(System.in);
System.out.println("The numbers are");
a = sw.nextInt();
b = sw.nextInt();
a = a + b;
b = a - b;
a = a - b;
System.out.println("Swapping numbers are");
System.out.println(a);
System.out.println(b);
}
}
```

Output:

The numbers are

12

24

Swapping numbers are

24

12

#### 11. To find even/odd number:

Program:

```
public class EvenOrOdd{
public static void main(String[] args) {
```

```
Scanner e = new Scanner(System.in);
System.out.println("Enter a Number");
int n = e.nextInt();
if (n % 2 == 0) {
System.out.println("Even number");
} else {
System.out.println("Odd number");
}
}
```

Output:

```
Enter a Number
23
Odd
```

## 12. Count of even and odd count

Program:

```
public class OddEvenCount{
public static void main(String[] args) {
int evencount = 0, oddCount=0;
for (int i = 1; i <= 100; i++) {
if (i % 2 == 0) {
evencount++;
}
else {
oddCount++;
}
}
System.out.println("Even count is "+evencount);
System.out.println("Odd count is "+oddCount); }
}
```

Output:

```
Even count is 50
Odd count is 50
```

## 13. Fibonacci series:

Program:

```
public class Fibonacci {
public static void main(String[] args) {
int a = 0, b = 1;
System.out.println(a);
System.out.println(b);
for (int i = 2; i <= 10; i++) {
int c = a + b;
System.out.println(c);
a = b;
b = c;
}
}
}
```

Output:

```
0
1
1
2
3
5
8
13
21
34
55
```

## 14. Print the value in Fibonacci series up to 100

Program:

```
public class Fibonacci{
public static void main(String[] args) {
int a = 0, b = 1;
System.out.println(a);
System.out.println(b);
for (int i = 1; i <= 10; i++) {
int c = a + b;
if(c<=100)
a = b;
b = c;
System.out.println(c);
}
}
}
```

Output:

```
0
1
1
2
3
5
8
13
21
34
55
89
```

#### 15. Reverse the String

Program:

```
public class ReverseString{
public static void main(String args[]) {
String original, reverse = "";
Scanner in = new Scanner(System.in);
System.out.println("Enter a string to reverse");
original = in.nextLine();
int length = original.length();
for (int i = length - 1; i >= 0; i--)
reverse = reverse + original.charAt(i);
System.out.println("Reverse of entered string is: " + reverse);
}
}
```

Output:

```
Enter a string to reverse
nishathi
Reverse of entered string is: ihtahsin
```

#### 16.To Check the String is palindrome or not.

Program:

```
public class Palindrome {
public static void main(String args[])
{
String original, reverse = "";
Scanner in = new Scanner(System.in);
System.out.println("Enter a string to check if it is a palindrome");
original = in.nextLine();
int length = original.length();
for ( int i = length - 1; i >= 0; i-- )
reverse = reverse + original.charAt(i);
if (original.equals(reverse))
System.out.println("Entered string is a palindrome.");
else
System.out.println("Entered string is not a palindrome.");
}
}
```

Output:

Enter a string to check if it is a palindrome

madam

Entered string is a palindrome.

#### 17.Count of each Character in the String

Program:

```
public class CountOfCharacter {
    public static void main(String args[]) {
        {
            String s = "vengatram";
            HashMap<Character, Integer> emp = new HashMap<Character,
            Integer>();
            char[] ch = s.toCharArray();
            for (char c : ch) {
                if (emp.containsKey(c)) {
                    int x = emp.get(c);
                    emp.put(c, x + 1);
                } else {
                    emp.put(c, 1);
                }
            }
            System.out.println(emp);
        }
    }
}
```

Output:

{a=2, r=1, t=1, e=1, v=1, g=1, m=1, n=1}

#### 18.Count of each Word

Program:

```
public class CountOfWord{
    public static void main(String args[]) {
        {
            String s = "vengat ram";
            String[] s1 = s.split(" ");
            HashMap<String, Integer> emp = new HashMap<String,
            Integer>();
            for (String c : s1) {
                if (emp.containsKey(c)) {
                    int x = emp.get(c);
                    emp.put(c, x + 1);
                } else {
                    emp.put(c, 1);
                }
            }
            System.out.println(emp);
        }
    }
}
```

Output:

{vengat=1, ram=1}

#### 19. Print the numbers in ascending order

Program:

```
public class AscendingOrder {
    public static void main(String[] args)
    {
        int n, temp;
        Scanner s = new Scanner(System.in);
        System.out.print("Enter no. of elements you want in array:");
        n = s.nextInt();
        int a[] = new int[n];
        System.out.println("Enter all the numbers:");
        for (int i = 0; i < n; i++)
        {
            a[i] = s.nextInt();
        }
        for (int i = 0; i < n; i++)
        {

```

```
for (int j = i + 1; j < n; j++)
{
    if (a[i] > a[j])
    {
        temp = a[i];
        a[i] = a[j];
        a[j] = temp;
    }
}
System.out.print("Ascending Order:");
for (int i = 0; i < n - 1; i++)
{
    System.out.print(a[i] + ",");
}
System.out.print(a[n - 1]);
}
```

Output:

Enter no. of elements you want in array: 10

Enter all the numbers:

20  
30  
40  
50  
60  
70  
80  
90  
100  
120

Ascending Order:20,30,40,50,60,70,80,90,100,120

20.Print the numbers in descending order

Program:

```
public class DescendingOrder{
    public static void main(String[] args) {
        int n, temp;
        Scanner s = new Scanner(System.in);
        System.out.print("Enter no. of elements you want in array:");
        n = s.nextInt();
        int a[] = new int[n];
        System.out.println("Enter all the elements:");
        for (int i = 0; i < n; i++) {
            a[i] = s.nextInt();
        }
        for (int i = 0; i < n; i++) {
            for (int j = i + 1; j < n; j++) {
                if (a[i] > a[j]) {
                    temp = a[i];
                    a[i] = a[j];
                    a[j] = temp;
                }
            }
        }
        System.out.print("Descending Order:");
        for (int i = n - 1; i > 0; i--) {
            System.out.print(a[i] + ",");
        }
        System.out.print(a[0]);
    }
}
```

Output:

Enter no. of elements you want in array: 5

Enter all the elements:

90  
50  
35  
48



12  
Descending Order:90,50,48,35,12

### 21.Print Triangle with Stars

Program:

```
public class Triangle{
public static void main(String[] args) {
for (int i = 1; i <= 5; i++) {
for (int j = 1; j <= 5 - i; j++) {
System.out.print("* ");
}
for (int k = 1; k <= i; k++) {
System.out.print(" ");
}
System.out.println(" ");}}}
```

Output:

```
*
* *
* * *
* * * *
* * * * *
```

22. Assume the string is he,xawa,re and give the output as  
hexaware

Program:

```
public class Replace {
public static void main(String[] args) {
String s="he,xawa,re";
String x = s.replace(",","");
System.out.println(x);
}
}
```

Output:

Hexaware

23.Find the special character, uppercase, lowercase, Number of  
digits in the given string

Program:

```
public class CharCount{
public static void main(String[] args) {
String s = "Hi Welcome To Java Classes Tommorrow At 2.00
p.m!!";
int count = 0;
int count1 = 0;
int count2 = 0;
int count3 = 0;
for (int i = 0; i < s.length(); i++) {
if (s.charAt(i) >= 'a' && s.charAt(i) <= 'z') {
count++;
} else if (s.charAt(i) >= 'A' && s.charAt(i) <= 'Z') {
count1++;
} else if (s.charAt(i) >= '0' && s.charAt(i) <= '9') {
count2++;
} else {
count3++;
}
}
System.out.println("total no of small letters: " + count);
System.out.println("total no of capital letters: " + count1);
System.out.println("total no of digits: " + count2);
System.out.println("total no of special characters: " + count3);
}
}
```

Output:

```
total no of small letters: 27
total no of capital letters: 7
total no of digits : 3
total no of special characters: 12
```

## 24. Print Reverse triangle without Space

Program:

```
public class ReverseTriangle{
public static void main(String[] args) {
for (int i = 1; i <= 5; i++) {
for (int j = 5; j >= i; j--) {
System.out.print("* ");
}
System.out.println();
}
}
}
```

Output:

```
* * * * *
* * * *
* * *
* *
*
```

## 25 . Check Whether the given number is prime or not

Program:

```
public class Prime{
public static void main(String[] args) {
int n;
Scanner input = new Scanner(System.in);
System.out.println("Enter the number");
n = input.nextInt();
int count = 0;
for (int i = 2; i <= n / 2; i++) {
if (n % i == 0) {
count = 1;
}
}
if (count == 0) {
System.out.println("It is a prime number");
} else {
System.out.println("It is not a prime number");
}
}
}
```

Output:

```
Enter the number
17
It is a prime number
```

## 26. Print the prime numbers counts available between 1 to 100

Program:

```
public class PrimeNumberCount{
public static void main(String[] args) {
int count, c = 0;
for (int i = 1; i <= 100; i++) {
count = 0;
for (int j = 2; j <= i / 2; j++) {
if (i % j == 0) {
count++;
}
}
if (count == 0) {
c++;
}
}
System.out.println(c);
}
}
```

Output:

26

## 27. Multiplication of the given number

Program:

```

public class Multiplication{
public static void main(String[] args) {
int n, j;
Scanner mt = new Scanner(System.in);
System.out.println("Enter the Table");
n = mt.nextInt();
System.out.println("Table upto");
j = mt.nextInt();
for (int i = 1; i <= j; i++) {
int c = n * i;
System.out.println(i + "*" + n + "=" + c);
}
}}

```

Output:

Enter the Table

7

Table upto

10

1\*7=7

2\*7=14

3\*7=21

4\*7=28

5\*7=35

6\*7=42

7\*7=49

8\*7=56

9\*7=63

10\*7=70

28. Biggest of 4 number

Program:

```

public class BiggestNumber{
public static void main(String[] args) {
int a, b, c, d;
Scanner bn = new Scanner(System.in);
System.out.println("The four numbers are");
a = bn.nextInt();
b = bn.nextInt();
c = bn.nextInt();
d = bn.nextInt();
if (a > b && a > c && a > d) {
System.out.println("The biggest number is= " + a);
} else if (b > a && b > c && b > d) {
System.out.println("The biggest number is= " + b);
} else if (c > a && c > b && c > d) {
System.out.println("The biggest number is= " + c);
} else {
System.out.println("The biggest number is= " + d);
}
}
}

```

Output:

The four numbers are

10

20

30

40

The biggest number is=40

29. Find the 3

rd

maximum Number in an given array

Program:

```

public class ThirdMax{
public static void main(String[] args) {
int a[]={-12,45,-23,64,-100,24};
for(int i=0;i<a.length;i++){
for(int j=i+1;j<a.length;j++){
int temp=0;

```

```

    if(a[i]<a[j]){
        temp=a[j];
        a[j]=a[i];
        a[i]=temp;
    }
}
for(int k=0;k<a.length;k++){
    System.out.println(a[k]);
}
System.out.println("The Third maximum number is " +
a[a.length4]);
}
}

```

Output:

```

64
45
24
-12
-23
-100
The Third maximum number is 24

```

30. Separate reverse of each word in the string

Program:

```

public class Reverse{
    public static void main(String[] args)
    {
        String name = "Greens Tech";
        String [] s =name.split(" ");
        String res = "";
        for(int i=0;i<s.length;i++)
        {
            String t = s[i];
            for(int j=t.length()-1;j>=0;j--)
            {
                char ch=t.charAt(j);
                res=res+ch;
            }
            res=res+ " ";
        }
        System.out.println(res);
    }
}

```

Output:

```

sneerG hceT

```

31. Number triangle

Program:

```

public class Welcome {
    public static void main(String[] args) {
        for (int i = 1; i <= 5; i++) {
            for (int j = 1; j <= 5 - i; j++) {
                System.out.print(" ");
            }
            for (int k = 1; k <= i; k++) {
                System.out.print(i+" ");
            }
            System.out.println(" ");
        }
    }
}

```

Output:

```

1
2 2
3 3 3
4 4 4 4
5 5 5 5 5

```

32. Find the duplicate count in an array

Program:

```
public class ArrayDuplicate {
    public static void main(String[] args)
    {
        int n, count=0;
        Scanner s = new Scanner(System.in);
        System.out.print("Enter no. of elements you want in array: ");
        n = s.nextInt();
        int a[] = new int[n];
        System.out.println("Enter all the numbers: ");
        for (int i = 0; i < n; i++)
        {
            a[i] = s.nextInt();
        }
        for (int i = 0; i < n; i++)
        {
            for (int j = i + 1; j < n; j++)
            {
                if(a[i]==a[j]) {
                    count++;
                }
            }
        }
        System.out.println(count);
    }
}
```

Output:

Enter no. of elements you want in array: 5

Enter all the numbers:

10  
20  
10  
30  
10  
3

33. Find the duplicate count in the string

Program:

```
public class ListDuplicate {
    public static void main(String[] args) {
        List<String> list = new ArrayList<String>();
        list.add("a");
        list.add("b");
        list.add("c");
        list.add("d");
        list.add("b");
        list.add("c");
        list.add("a");
        list.add("a");
        list.add("a");
        System.out.println("Count all with frequency");
        Set<String> uniqueSet = new HashSet<String>(list);
        for (String temp : uniqueSet) {
            System.out.println(temp + ": " +
                Collections.frequency(list, temp));
        }
    }
}
```

Output:

Count all with frequency

a: 4  
b: 2  
c: 2  
d: 1

34. Count of the palindrome number

Program:

```
public class PalindromeCount{
    public static void main(String[] args) {
```

```
int c = 0;
for (int n = 1; n <= 1000; n++) {
    int a, i = 0, j = 0;
    a = n;
    while (a > 0) {
        i = a % 10;
        j = (j * 10) + i;
        a = a / 10;
    }
    if (n == j) {
        c++;
    }
}
System.out.println(c);
}
}
Output:
106
```

### 35. Count of the amstrong number

Program:

```
public class AmstrongCount {
    public static void main(String[] args) {
        int c = 0;
        for (int n = 1; n <= 1000; n++) {
            int a, i = 0, j = 0;
            a = n;
            while (a > 0) {
                i = a % 10;
                j = j + (i * i * i);
                a = a / 10;
            }
            if (n == j) {
                c++;
            }
        }
        System.out.println(c);
    }
}
Output:
5
```

### 36. Construct the triangle pyramid

Program:

```
public class TrianglePyramid{
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("How Many Rows You Want In Your Pyramid?");
        int noOfRows = sc.nextInt();
        int rowCount = 1;
        System.out.println("Here Is Your Pyramid");
        for (int i = noOfRows; i >= 1; i--)
        {
            //Printing i*2 spaces at the beginning of each row
            for (int j = 1; j <= i*2; j++)
            {
                System.out.print(" ");
            }
            //Printing j where j value will be from i to noOfRows
            for (int j = i; j <= noOfRows; j++)
            {
                System.out.print(j+" ");
            }
            for (int j = noOfRows-1; j >= i; j--)
            {
                System.out.print(j+" ");
            }
            System.out.println();
            //Incrementing the rowCount
        }
    }
}
```

```

rowCount++;
}
}
}

```

Output:

How Many Rows You Want In Your Pyramid?

5

Here Is Your Pyramid

```

5
4 5 4
3 4 5 4 3
2 3 4 5 4 3 2
1 2 3 4 5 4 3 2 1

```

37. Count of vowels and non vowels

Program:

```

public class VowelsCount {
public static void main(String[] args) {
String a = "welcome";
int vowels = 0;
int nonVowels = 0;
for (int i = 0; i < a.length(); i++) {
char ch = a.charAt(i);
if (ch == 'a' || ch == 'A' || ch == 'e' || ch == 'E' || ch == 'i'
|| ch == 'I' || ch == 'o' || ch == 'O' || ch == 'u'
|| ch == 'U') {
vowels++;
} else {
nonVowels++;
}
}
System.out.println("Count of vowels is "+vowels);
System.out.println("Count of Non Vowels is "+nonVowels);
}
}

```

Output:

```

Count of vowels is 3
Count of Non Vowels is 4

```

37.Remove duplicates from stored array

Program:

```

public class RemoveDuplicate {
public static int[] removeDuplicates(int[] input){
int j = 0;
int i = 1;
//return if the array length is less than 2
if(input.length < 2){
return input;
}
while(i < input.length){
if(input[i] == input[j]){
i++;
}else{
input[++j] = input[i++];
}
}
int[] output = new int[j+1];
for(int k=0; k<output.length; k++){
output[k] = input[k];
}
return output;
}
public static void main(String a[]){
int[] input1 = {2,3,6,6,8,9,10,10,10,12,12};
int[] output = removeDuplicates(input1);
for(int i:output){
System.out.print(i+" ");
}
}
}

```

```
}  
Output:  
{2 3 6 8 9 10 12}
```

38.Sum of the odd and even number

Program:

```
public class SumOfOdd{  
public static void main(String[] args) {  
int oddCount = 0,evenCount=0;  
for (int i = 1; i <= 100; i++) {  
if (i % 2 == 1) {  
oddCount= oddCount + i;  
}  
else {  
evenCount=evenCount+i;  
}  
}  
System.out.println("Count of odd number is "+oddCount);  
System.out.println("Count of even number is "+evenCount);  
}  
}
```

Output:

```
Count of odd number is 2500  
Count of even number is 2550
```

39.Count of Uppercase, lowercase, digits, special character

Program:

```
public class Test {  
public static void main(String[] args) {  
int lCaseCount = 0, uCaseCount = 0, numbersCount = 0,  
sCharCount = 0;  
String s = "Welcome To JAVA Clas @ 12345";  
for (int i = 0; i < s.length(); i++) {  
char ch = s.charAt(i);  
if (Character.isLowerCase(ch)) {  
lCaseCount++;  
} else if (Character.isUpperCase(ch)) {  
uCaseCount++;  
} else if (Character.isDigit(ch)) {  
numbersCount++;  
} else {  
sCharCount++;  
}  
}  
System.out.println("Upper Case Count: " + uCaseCount);  
System.out.println("Lower Case Count: " + lCaseCount);  
System.out.println("Numbers Count: " + numbersCount);  
System.out.println("Special Characters Count: " + sCharCount);  
}  
}
```

Output:

```
Upper Case Count: 7  
Lower Case Count: 10  
Numbers Count: 5  
Special Characters Count: 6
```