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
```

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,xa,wa,re and give the output as hexaware

Program:

```
public class Replace {
public static void main(String[] args) {
String s="he,xa,wa,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 Tommorow 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("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 3rd 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:
```

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
```