

JAVA BASIC PROGRAMS

PROGRAM 1

```
public class Main                                //sum of two numbers
{
    public static void main(String[] args) {
        int num1=20;
        int num2=30;
        int sum=num1+num2;
        System.out.println("sum is:"+sum);
    }
}
```

OUTPUT:

Sum is 50

PROGRAM 2

```
public class Main
{
    public static void main(String[] args) {
        int num=20;
        int quotient=num/2;
        int remainder=num%2;
        System.out.println("quotient is:"+quotient);
        System.out.println("remainder is:"+remainder);
    }
}
```

OUTPUT:

quotient is:10

remainder is:0

PROGRAM 3

```
public class Main                                //finding total average
{
    public static void main(String[] args) {
```

```

        int num1=20;

        int num2=30;

        int num3=50;

        int totalsum=num1+num2+num3;

        float average=totalsum/3;

        System.out.println("totalsum is:"+totalsum);

    System.out.println("average is:"+average);

    }

}

```

OUTPUT:

```

totalsum is:100
average is:33.0

```

PROGRAM 4

```

public class Main                                //squares
{

    public static void main(String[] args) {

        int num1=20;

        int square=num1*num1;

        System.out.println("square of "+num1+" is:"+square);

    }

}

```

OUTPUT:

```

square of 20 is:400

```

PROGRAM 5

```

import java.lang.Math;                            //squares using math module

public class Main
{

    public static void main(String[] args) {

        System.out.println(Math.pow(2,3));

    }

}

```

OUTPUT:

PROGRAM 6

```
public class Main                                //finding cube
{
    public static void main(String[] args) {
        int num=5;
        int cube=num*num*num;
        System.out.println("cube of "+num+" is "+cube);
    }
}
```

OUTPUT:

cube of 5 is 125

PROGRAM 7

```
public class Main                                // sum of square and cube of number
{
    public static void main(String[] args) {
        int num=5;
        int square=num*num;
        int cube=num*num*num;
        int sum=square+cube;
        System.out.println("sum of square and cube of "+num+" is "+sum);
    }
}
```

OUTPUT:

sum of square and cube of 5 is 150

PROGRAM 8

```
public class Main
{
    public static void main(String[] args) {
        int num=1235;
        int lastdigit=num%10;
        System.out.println("last digit of given number is :"+lastdigit);
    }
}
```

```
}
```

```
}
```

OUTPUT:

last digit of given number is: 5

PROGRAM 9

```
public class Main                                //finding last digit
```

```
{
```

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

```
        int num=1235;
```

```
        int lastdigit=num/10;
```

```
        System.out.println(lastdigit);
```

```
    }
```

```
}
```

OUTPUT:

123

PROGRAM 10

```
public class Main                                //finding sum of given numbers
```

```
{
```

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

```
        int num=10;
```

```
        int sum=0;
```

```
        for(int i=0;i<=num;i++){
```

```
            sum=sum+i;
```

```
        }
```

```
        System.out.println("sum of n given number is "+sum);
```

```
    }
```

```
}
```

OUTPUT:

sum of n given number is 55

PROGRAM 11

```
public class Main
{
    public static void main(String[] args) {
        int num1=10;
        int num2=20;
        num1=num1+num2;
        num2=num1-num2;
        num1=num1-num2;
        System.out.println("num1 :"+num1+"\n"+"num2 :"+num2);
    }
}
```

OUTPUT:

```
num1 :20
num2 :10
```

PROGRAM 12

```
public class Main //finding area of circle
{
    public static void main(String[] args) {
        int radius=5;
        double pi=3.14;
        double area= pi*radius*radius;
        System.out.println("Area of circle is:"+area);
    }
}
```

OUTPUT:

```
Area of circle is:78.5
```

PROGRAM 13

```
public class Main //finding speed
{
    public static void main(String[] args) {
        double time=2.0; //hours
```

```

        double distance= 50.0;//kilometers

        double speed=distance/time; //kilometer per hours

        System.out.println("speed is :"+speed);
    }
}

```

OUTPUT:

speed is :25.0

PROGRAM 14

```

public class Main                                //finding distancce
{
    public static void main(String[] args) {
        double time=2.0; //hours
        double speed=30.0; //kilometer per hours
        double distance= time*speed;//kilometers
        System.out.println("distance is :"+distance);
    }
}

```

OUTPUT:

distance is :60.0

PROGRAM 15

//program to give 20% bonus on salary if the employee has more than 5 years of experience

```

public class Main
{
    public static void main(String[] args) {
        double sal=5000;
        int years=6; //if ypu give value below 5 it gives output as not eligible
        if (years>5)
        {
            double bonus=0.20* 5000;

            System.out.println("bonus is:"+bonus);

            sal= bonus+sal;
        }
    }
}

```

```

        System.out.println("salary is:"+sal);
    }
    else{
        System.out.println("not eligible");
    }
}
}

```

OUTPUT:

bonus is:1000.0

salary is:6000.0

PROGRAM 16

```

public class Main
{
    public static void main(String[] args) {    //finding even numbers
        int x=10;
        for(int i=1;i<=x;i++){
            if(i%2==0){
                System.out.print(i+" ");
            }
        }
    }
}

```

OUTPUT:

2 4 6 8 10

PROGRAM 17

```

public class Main
{
    public static void main(String[] args) {    //finding odd numbers
        int x=10;
        for(int i=1;i<=x;i++){
            if(i%2!=0){
                System.out.print(i+" ");
            }
        }
    }
}

```

```
    }  
    }  
}
```

OUTPUT:

1 3 5 7 9

PROGRAM 18

```
public class Main  
{  
    public static void main(String[] args) {  
        for(int x=15;x>=0;x=x-3){  
            System.out.print(x+" ");  
        }  
    }  
}
```

OUTPUT:

15 12 9 6 3 0

PROGRAM 19

```
public class Main  
{  
    public static void main(String[] args) {  
        for(int x=10;x<=50;x=x+10){  
            System.out.print(x+" ");  
        }  
    }  
}
```

OUTPUT:

10 20 30 40 50

PROGRAM 20

```
public class Main  
{
```



```

public static void main(String[] args) {
    for(char x='a';x<='z';x++){
        System.out.print(x+" ");
    }
}

```

OUTPUT:

a b c d e f g h i j k l m n o p q r s t u v w x y z

PROGRAM 21

```

public class Main
{
    public static void main(String[] args) {
        for(char x='A';x<='Z';x++){
            System.out.print(x+" ");
        }
    }
}

```

OUTPUT:

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

PROGRAM 22

```

public class Main
{
    public static void main(String[] args) {
        for(char x='Z';x>='A';x--){
            System.out.print(x+" ");
        }
    }
}

```

OUTPUT:

Z Y X W V U T S R Q P O N M L K J I H G F E D C B A

PROGRAM 23

```
public class Main
{
    public static void main(String[] args) {
        for(char x='z';x>='a';x--){
            System.out.print(x+" ");
        }
    }
}
```

OUTPUT:

z y x w v u t s r q p o n m l k j i h g f e d c b a

PROGRAM 24

```
public class Main
{
    public static void main(String[] args) {
        int n=10;
        for(int x=1;x<=n;x++){
            System.out.print(x+" ");
        }
    }
}
```

OUTPUT:

1 2 3 4 5 6 7 8 9 10

PROGRAM 25

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

        for(int n=10;n>=1;n--){
            System.out.print(n+" ");
        }
    }
}
```

OUTPUT:

10 9 8 7 6 5 4 3 2 1

PROGRAM 26

```
public class Main
{
    public static void main(String[] args)
    {
        System.out.println("ASCII value from a to z");
        for(char n='a';n<='z';n++){
            System.out.print((int)n+" ");
        }
    }
}
```

OUTPUT:

ASCII value from a to z

97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121
122

PROGRAM 27

```
public class Main
{
    public static void main(String[] args)
    {
        System.out.println("cube values of 1 to 5");
        for(int n=1;n<=5;n++){
            System.out.print(n*n*n+" ");
        }
    }
}
```

OUTPUT:

cube values of 1 to 5

1 8 27 64 125

PROGRAM 28

```
public class Main
{
    // squares in a range

    public static void main(String[] args)
    {
        System.out.println("square values of 1 to 5");
        for(int n=1;n<=5;n++){
            System.out.print(n*n+" ");
        }
    }
}
```

OUTPUT:

square values of 1 to 5

1 4 9 16 25

PROGRAM 29

```
public class Main
{
    public static void main(String[] args)    //finding sum of n numbers
    {
        System.out.println("sum of first N numbers");
        int n=5;
        int sum=0;
        for(int i=0;i<=n;i++){
            sum=sum+i;
        }
        System.out.print("sum of N numbers is:"+sum);
    }
}
```

OUTPUT:

sum of first N numbers

sum of N numbers is:15

PROGRAM 30

```
import java.util.*;

public class Main
{
    public static void main(String[] args)        //finding factorial of n numbers
    {
        Scanner sc =new Scanner(System.in);
        System.out.print("enter number:");
        int num=sc.nextInt();
        int factorial=1;
        for(int i=1;i<=num;i++){
            factorial=factorial*i;
        }
        System.out.print("factorial of N numbers is:"+factorial);

    }
}
```

OUTPUT:

```
enter number:5
factorial of N numbers is:120
```

PROGRAM 31

```
import java.util.*;

public class Main
{
    public static void main(String[] args)        //finding even numbers in a range
    {
        Scanner sc =new Scanner(System.in);
        System.out.print("enter number range:");
        int num=sc.nextInt();
        for(int i=0;i<=num;i++){
            if(i%2==0){
                System.out.print(i+" ");
            }
        }
    }
}
```

```
    }  
    }  
}
```

OUTPUT:

enter number range:10

0 2 4 6 8 10

PROGRAM 32

```
import java.util.*;  
public class Main  
{  
    public static void main(String[] args) //finding odd numbers in a range  
    {  
        Scanner sc =new Scanner(System.in);  
        System.out.print("enter number range:");  
        int num=sc.nextInt();  
        for(int i=0;i<=num;i++){  
            if(i%2!=0){  
                System.out.print(i+" ");  
            }  
        }  
    }  
}
```

OUTPUT:

enter number range:10

1 3 5 7 9

PROGRAM 33

```
import java.util.*;  
public class Main  
{  
    public static void main(String[] args) //finding sum of odd numbers  
    {  
        Scanner sc =new Scanner(System.in);
```

```

        System.out.print("enter number range:");

        int num=sc.nextInt();

        int sum=0;
        for(int i=0;i<=num;i++){
            if(i%2!=0){

                System.out.print(i+" ");

                sum=sum+i;

            }

        }

        System.out.print("\n"+"sum is "+sum);

    }
}

```

OUTPUT:

```

enter number range:10
1 3 5 7 9
sum is 25

```

PROGRAM 34

```

import java.util.*;

public class Main

{
    //finding sum of even numbers

    public static void main(String[] args)

    {

        Scanner sc =new Scanner(System.in);

        System.out.print("enter number range:");

        int num=sc.nextInt();

        int sum=0;

        for(int i=0;i<=num;i++){

            if(i%2==0){

                System.out.print(i+" ");

                sum=sum+i;

            }

        }

    }
}

```

```
    }  
    System.out.print("\n"+"sum is "+sum);  
    }  
}
```

OUTPUT:

enter number range:10

0 2 4 6 8 10

sum is 30

PROGRAM 35

```
import java.util.*;  
  
public class Main                                //finding sum of digits  
{  
    public static void main(String[] args)  
    {  
        Scanner sc =new Scanner(System.in);  
        System.out.print("enter number range:");  
        int num=sc.nextInt();  
        int sum=0;  
        while(num!=0){  
            int r=num%10;  
            sum=sum+r;  
            num=num/10;  
        }  
        System.out.println("sum of digits is :"+sum);  
    }  
}
```

OUTPUT:

enter number range:1234

sum of digits is :10

PROGRAM 36

```
import java.util.*;  
  
public class Main
```



```

{

    public static void main(String[] args) //finding last digit
    {
        Scanner sc =new Scanner(System.in);
        System.out.print("enter number range:");
        int num=sc.nextInt();
        int count=0;
        while(num!=0){
            int r=num%10;
            count=count+1;
            num=num/10;
        }
        System.out.println("count of digits is :"+count);
    }
}

```

OUTPUT:

```

enter number range:12345
count of digits is :5

```

PROGRAM 37

```

import java.util.*;

public class Main
{
    public static void main(String[] args)
    {
        Scanner sc =new Scanner(System.in);
        System.out.println("MULTIPLICATION TABLE");
        System.out.print("enter number :");
        int num=sc.nextInt();
        for(int i=1;i<=10;i++){
            System.out.println(i+" X "+num+"="+i*num);
        }
    }
}

```

OUTPUT:

MULTIPLICATION TABLE

enter number :9

1 X 9=9
2 X 9=18
3 X 9=27
4 X 9=36
5 X 9=45
6 X 9=54
7 X 9=63
8 X 9=72
9 X 9=81
10 X 9=90

PATTERNS

PROGRAM 38

```
import java.util.*;

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

OUTPUT:

12345
12345
12345
12345

12345

PROGRAM 39

```
import java.util.*;

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

        }
    }
}
```

OUTPUT:

11111

22222

33333

44444

55555

PROGRAM 40

```
import java.util.*;

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

```
System.out.println();
```

```
}
```

```
}
```

```
}
```

OUTPUT:

```
* * * * *
```

```
* * * * *
```

```
* * * * *
```

```
* * * * *
```

```
* * * * *
```

PROGRAM 41

```
import java.util.*;
```

```
public class Main
```

```
{
```

```
    public static void main(String[] args)
```

```
    {
```

```
        for(int i=1;i<=5;i++){
```

```
            for(int j=5;j>=1;j--) {
```

```
                System.out.print(j+" ");
```

```
            }
```

```
            System.out.println();
```

```
        }
```

```
    }
```

```
}
```

OUTPUT:

```
5 4 3 2 1
```

```
5 4 3 2 1
```

```
5 4 3 2 1
```

```
5 4 3 2 1
```

```
5 4 3 2 1
```

PROGRAM 42

```
import java.util.*;

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

OUTPUT:

55555

44444

33333

22222

11111

PROGRAM 43

```
import java.util.*;

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

```
    }  
}
```

OUTPUT:

```
AAAAA  
BBBBB  
CCCCC  
DDDDD  
EEEEE
```

PROGRAM 44

```
import java.util.*;  
public class Main  
{  
    public static void main(String[] args)  
    {  
        for(char i=1;i<=5;i++){  
            for(char j='A';j<='E';j++) {  
                System.out.print(j+"");  
            }  
            System.out.println();  
        }  
    }  
}
```

OUTPUT:

```
ABCDE  
ABCDE  
ABCDE  
ABCDE  
ABCDE
```

PROGRAM 45

```
import java.util.*;  
public class Main
```

```
{  
  
    public static void main(String[] args)  
    {  
        for(int i=1;i<=5;i++){  
            for(char j='E';j>='A';j--) {  
                System.out.print(j);  
            }  
            System.out.println();  
        }  
    }  
}
```

OUTPUT:

EDCBA

EDCBA

EDCBA

EDCBA

EDCBA

PROGRAM 46

```
import java.util.*;  
  
public class Main  
{  
  
    public static void main(String[] args)  
    {  
        for(int i=1;i<=5;i++){  
            for(int j=1;j<=i;j++) {  
                System.out.print(j);  
            }  
            System.out.println();  
        }  
    }  
}
```

OUTPUT:

1
12
123
1234
12345

PROGRAM 47

```
import java.util.*;

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

OUTPUT:

12345
1234
123
12
1

PROGRAM 48

```
import java.util.*;

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



```

    {
        for(int i=5;i>=1;i--){
            for(int j=1;j<=i;j++) {
                System.out.print(i);
            }
            System.out.println();
        }
    }
}

```

OUTPUT:

```

55555
4444
333
22
1

```

PROGRAM 49

```

import java.util.*;
public class Main
{
    public static void main(String[] args)
    {
        for(int i=1;i<=5;i++){
            for(int j=1;j<=i;j++) {
                System.out.print(i);
            }
            System.out.println();
        }
    }
}

```

OUTPUT:

```

1

```

22

333

4444

55555