1. **Write a java program to print Hello World.**

class HelloWorld {

public static void main(String[] args) {

System.out.println("Hello World!");

}

}

**Output:-**

Hello World!

1. **Write a java program to print the addition of two numbers.**

class Add {

public static void main(String[] args) {

int a=10,b=20,c;

c=a+b;

System.out.println(c+" ");

}

}

**Output:-**

30

1. **Write a java program to check whether the number is even or odd.**

class Even {

public static void main(String[] args) {

int a=10;

if(a%2==0)

{

System.out.println("Even");

}

else

{

System.out.println("Odd");

}

}

}

**Output:-**

Even

1. **Write a java program to print the table of n.**

class Table {

public static void main(String[] args) {

int a=3,i;

for(i=1;i<=10;i++)

{

System.out.println(a+"\*"+i+"="+a\*i);

}

}

}

**Output:-**

3\*1=3

3\*2=6

3\*3=9

3\*4=12

3\*5=15

3\*6=18

3\*7=21

3\*8=24

3\*9=27

3\*10=30

1. **Write a java program to check if the character is vowel or not using switch.**

class Vowel {

public static void main(String[] args) {

char vowel='a';

switch(vowel)

{

case 'e':

System.out.println("Its an vowel");

break;

case 'i':

System.out.println("Its an vowel");

break;

case 'o':

System.out.println("Its an vowel");

break;

case 'a':

System.out.println("Its an vowel");

break;

case 'u':

System.out.println("Its an vowel");

break;

}

}

}

**Output:-**

Its an vowel

1. **Write a java program on object.**

class Obj {

int id=10;

String name="Java";

public static void main(String[] args) {

Obj o=new Obj();

System.out.println(o.id);

System.out.println(o.name);

}

}

**Output:-**

10

Java

1. **Write a java program using for loop to print alternate numbers.**

class Alter{

public static void main(String[] args) {

for(int i=1;i<=10;i=i+2)

{

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

}

}

}

**Output:-**

1 3 5 7 9

1. **Write a java program to the operation of +,-,\*, /, % of 2 numbers.**

public class Operator {

public static void main(String[] args) {

// TODO Auto- generated method stub

int a=150,b=20;

System.out.println("Addition: "+(a+b));

System.out.println("Subtraction: "+(a- b));

System.out.println("Multiplication: "+(a\*b));

System.out.println("Division: "+(a/b));

System.out.println("Remainder: "+(a%b));

}

}

**Output:-**

Addition: 170

Subtraction: 130

Multiplication: 3000

Division: 7

Remainder: 10

1. **Write a java program by accepting a month and display days using string in switch case.**

public class Calender {

public static void main(String[] args) {

String month="October";

switch(month)

{

case "January":

System.out.println("January has 31 days");

break;

case "February":

System.out.println("February has 30 days");

break;

case "March":

System.out.println("March has 31 days");

break;

case "April":

System.out.println("April has 30 days");

break;

case "May":

System.out.println("May has 31 days");

break;

case "June":

System.out.println("June has 30 days");

break;

case "July":

System.out.println("July has 31 days");

break;

case "August":

System.out.println("August has 30 days");

break;

case "September":

System.out.println("September has 31 days");

break;

case "October":

System.out.println("October has 30 days");

break;

case "November":

System.out.println("November has 31 days");

break;

case "December":

System.out.println("December has 30 days");

break;

}

}

}

**Output:-**

October has 30 days

1. **Write a java program by accepting a month and display days using OR operator.**

public class Calender {

String month="November";

public void check()

{

if(month=="April"||month=="June"||month=="September"||month=="November")

{

System.out.println("30 Days");

}

else if(month=="February")

{

System.out.println("28 days");

}

else if(month=="January"||month=="March"||month=="May"

||month=="July"||month=="August"

||month=="October"||month=="December")

{

System.out.println("31days");

}

else

{

System.out.println("Invalid month");

}

}

public static void main(String[] args) {

// TODO Auto- generated method stub

Calender c=new Calender();

c.check();

}

}

**Output:-**

30 Days

1. **Write a java program on all 3 variable types.**

**1]local variable**

class Local {

void show()

{

int age=10;

System.out.println("You are "+age+" years old");

}

public static void main(String[] args) {

Local l=new Local();

l.show();

}

}

**Output:-**

You are 10 years old

2]Instance

Class Instance {

int x=10;

void show()

{

x=x+100;

System.out.println(x);

}

public static void main(String[] args) {

Local l=new Local();

System.out.println("Instance variable is: "+l.x);

l.show();

}

}

Output:-

Instance variable is: 10

110

3]Static

class Static {

public static String name="Developer";

public static void main(String[] args) {

System.out.println("Java "+name);

}

}

Output:-

Java Developer

1. **Write a java program to print the area of rectangle , square, circle and triangle.**

class Area{

public static void main(String args[]){

int r=5,l=2,b=2,s=4,h=2;

System.out.println("Area of circle: "+(3.14\*r\*r));

System.out.println("Area of rectangle: "+(l\*b));

System.out.println("Area of square: "+(s\*s));

System.out.println("Area of triangle: "+(1/2\*b\*h));

}

}

**Output:-**

Area of circle: 78.5

Area of rectangle: 4

Area of square: 16

Area of triangle: 0

1. **Write a java program to print 1 to 10 in reverse order using for.**

class Reverse {

public static void main(String[] args) {

for(int i=10;i>=1;i--)

{

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

}

}

}

**Output:-**

10 9 8 7 6 5 4 3 2 1

1. **Write a java program to print the product of digit of alternate numbers (for eg.10X8X6X4X2= )**

class Factors {

void accpet()

{

int sum=1;

for(int i=10;i>=2;i=i-2)

{

sum=sum\*i;

}

System.out.println(sum);

}

public static void main(String[] args) {

// TODO Auto- generated method stub

Factors f=new Factors();

f.accpet();

}

}

**Output:-**

3840

1. **Write a java program to print the product of digit of number.**

public class prod\_digit {

int num=552,prod=1,temp=num;

void accpet()

{

int digit;

while(num>0)

{

digit=num%10;

prod=prod\*digit;

num=num/10;

}

System.out.println(prod);

}

public static void main(String[] args) {

// TODO Auto- generated method stub

prod\_digit pd=new prod\_digit();

pd.accpet();

}

}

**Output:-**

50

1. **Write a java program to print the sum of digit of number.**

public class Sum\_d {

int num=4323,sum=0;

void accept()

{

int digit;

while(num>0)

{

digit=num%10;

sum+=digit;

num=num/10;

}

System.out.println("Sum of digitis:"+sum);

}

public static void main(String[] args) {

// TODO Auto- generated method stub

Sum\_d sd=new Sum\_d();

sd.accept();

}

}

**Output:-**

Sum of digitis:12

1. **Write a java program to print the sum of square of digit of number.**

public class Sq\_sum {

int num=246,sum=0;

void accept()

{

int digit;

while(num>0)

{

digit=num%10;

sum=sum+(digit\*digit);

num=num/10;

}

System.out.println("Sum of square:"+sum);

}

public static void main(String[] args) {

// TODO Auto- generated method stub

Sq\_sum sn=new Sq\_sum();

sn.accept();

}

}

**Output:-**

Sum of square:56

1. **Write a java program to print the sum of cube of digit of number.**

public class Cube\_sum {

int num=368,sum=0;

void accept()

{

int digit;

while(num>0)

{

digit=num%10;

sum=sum+(digit\*digit\*digit);

num=num/10;

}

System.out.println("Sum of Cube:"+sum);

}

public static void main(String[] args) {

// TODO Auto- generated method stub

Cube\_sum sn=new Cube\_sum();

sn.accept();

}

}

**Output:-**

Sum of Cube:755

1. **Write a java program to print the factorial of number.**

class Factorial {

int n=5,fact=1;

void accept()

{

for(int i=1;i<=n;i++)

{

fact=fact\*i;

}

System.out.println("Factorial is:"+fact);

}

public static void main(String[] args) {

// TODO Auto- generated method stub

Factorial f=new Factorial();

f.accept();

}

}

**Output:-**

Factorial is:120

1. **Write a java program to print the area of rectangle , square, circle and triangle using switch.**

import java.util.Scanner;

class Area\_Sw {

public static void main(String[] args) {

int b=5,h=3,r=10,len=10,bre=12,side=7;

System.out.print("Enter your shape: ");

Scanner sc1=new Scanner(System.in);

String shape=sc1.nextLine();

switch(shape)

{

case "triangle":

float tri=0.5f\*b\*h;

System.out.println("Area of triangle = "+tri);

break;

case "square":

int squ=side\*side;

System.out.println("Area of square = "+squ);

break;

case "circle":

double cir=3.14\*r\*r;

System.out.println("Area of circle = "+cir);

break;

case "rectangle":

int rect=len\*bre;

System.out.println("Area of rectangle = "+rect);

break;

default:

System.out.println("Invalid");

}

}

}

**Output:-**

Enter your shape: square

Area of square = 49

1. **Write a java program to do the arithmetic operations using switch case.**

class Operation {

public static void main(String[] args) {

int a=5,b=10;

String vari="Add";

switch(vari)

{

case "Add":

System.out.println("Add: "+(a+b));

break;

case "Sub":

System.out.println("Sub= "+(a-b));

break;

case "Multi":

System.out.println("Multi= "+(a\*b));

break;

case "Div":

System.out.println("Division= "+(a/b));

break;

case "Reminder":

System.out.println("Reminder= "+(a%b));

break;

default:

System.out.println("Invalid");

}

}

}

**Output:-**

Add: 15

1. **Write a java program to swap 2 numbers using 3rd variable.**

class Swap {

int a=5,b=10;

void accept()

{

a=a+b;

b=a-b;

a=a-b;

System.out.println(a);

System.out.println(b);

}

public static void main(String[] args) {

Swap s=new Swap();

s.accept();

}

}

**Output:-**

10

5

1. **Write a java program to swap 2 numbers without using 3rd variable.**

class Swap {

int a=5,b=10,t;

void accept()

{

t=a;

a=b;

b=t;

System.out.println(a);

System.out.println(b);

}

public static void main(String[] args) {

Swap s=new Swap();

s.accept();

}

}

**Output:-**

10

5

1. **Write a java program to check whether the number is Armstrong or not.**

public class Armstrong {

int num=153,prod=0;

int temp=num;

void accpet()

{

int digit;

while(num>0)

{

digit=num%10;

prod=prod+(digit\*digit\*digit);

num=num/10;

}

if(prod==temp)

{

System.out.println("yes");

}

else

{

System.out.println("no");

}

}

public static void main(String[] args) {

// TODO Auto- generated method stub

Armstrong pd=new Armstrong();

pd.accpet();

}

}

**Output:-**

yes

1. **Write a java program to check whether the number is palindrome or not.**

public class palindrom {

int num=4356,prod=0;

int temp=num;

void accpet()

{

int digit;

for(;num>0;num=num/10)

{

digit=num%10;

prod=prod\*10+digit;

}

System.out.println(prod);

if(prod==temp)

{

System.out.println("Palindrome");

}

else

{

System.out.println("Not a Palindrome");

}

}

public static void main(String[] args) {

palindrom pd=new palindrom ();

pd.accpet();

}

}

**Output:-**

6534

Not a Palindrome

1. **Write a java program to check whether the number is prime is not.**

**//Printing prime series**

public class PrimeSeries {

public static void main(String[] args) {

int limit=200;

for(int i=1;i<=limit;i++)

{

int count=0;

for(int j=2;j<=i-1;j++)

{

if(i%j==0)

{

count++;

break;

}

}

if(count==0)

{

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

}

}

}

}

**Output:-**

1 2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97 101 103 107 109 113 127 131 137 139 149 151 157 163 167 173 179 181 191 193 197 199

**//Using temp>0**

public class PrimeSeries {

public static void main(String[] args) {

int n=13,temp=0;

for(int i=2;i<=n-1;i++)

{

if(n%i==0)

{

temp=temp+1;

}

}

if(temp>0)

{

System.out.print("Not prime");

}

else

{

System.out.print("Prime");

}

}

}

**Output:-**

Prime

**//Using temp==2**

public class PrimeSeries {

public static void main(String[] args) {

int n=13,temp=0;

for(int i=1;i<=n;i++)

{

if(n%i==0)

{

temp=temp+1;

}

}

if(temp==2)

{

System.out.print("Prime");

}

else

{

System.out.print("Not prime");

}

}

}

**Output:-**

Prime

1. **Write a java program to print the Fibonacci series.**

public class Fibo {

public static void main(String[] args) {

int a=0,b=1,c;

System.out.print(a+" "+b+" ");

for(int i=2;i<=10;i++)

{

c=a+b;

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

a=b;

b=c;

}

}

}

**Output:-**

0 1 1 2 3 5 8 13 21 34 55

1. **Write a java program to perform the addition of first 10 natural numbers**

public class AddF {

public static void main(String[] args) {

int num=0;

for(int i=1;i<=10;i++)

{

num=num+i;

}

System.out.print("First 10 num addition: "+num);

}

}

**Output:-**

First 10 num addition: 55

**29) Write a java program to print the squares of first 10 numbers.**

public class SquareNumbers {

public static void main(String[] args) {

// Loop through the first 10 numbers

for (int i = 1; i <= 10; i++) {

// Calculate the square of the number

int square = i \* i;

// Print the result

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

}

}

}

**Output:-**

1 4 9 16 25 36 49 64 81 100

**30) Write a java program to print \* after every 3 numbers like (1 2 3 \* 5 6 7 \* 8 9 10)**

public class SquareNumbers {

public static void main(String[] args) {

int i,num=1;

for ( i = 1; i <= 10; i++)

{

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

if(num%3==0)

{

System.out.print("\* ");

}

num++;

}

}

}

**Output:-**

1 2 3 \* 4 5 6 \* 7 8 9 \* 10

**Patterns**

//31 **\* \* \* \* \***

**\* \* \* \* \***

class starP {

public static void main(String[] args) {

for(int r=1;r<=2;r++)

{

for(int c=1;c<=5;c++)

{

System.out.print("\*");

}

System.out.println();

}

}

}

//32  **\* \* \* \* \***

**\* \* \* \* \***

**\* \* \* \* \***

**\* \* \* \* \***

**\* \* \* \* \***

// Online Java Compiler

// Use this editor to write, compile and run your Java code online

class starP {

public static void main(String[] args) {

for(int r=1;r<=5;r++)

{

for(int c=1;c<=5;c++)

{

System.out.print("\* ");

}

System.out.println();

}

}

}

//33 **\***

**\* \***

**\* \* \***

**\* \* \* \***

**\* \* \* \* \***

class StarP{

public static void main(String args[])

{

for(int r=1;r<=5;r++)

{

for(int c=1;c<=r;c++)

{

System.out.print("\* ");

}

System.out.println();

}

}

}

//**34 \* \* \* \* \***

**\* \* \* \***

**\* \* \***

**\* \***

**\***

class StarP{

public static void main(String args[])

{

for(int r=5;r>=1;r--)

{

for(int c=1;c<=r;c++)

{

System.out.print("\* ");

}

System.out.println();

}

}

}

35 **\***

**\* \***

**\* \* \***

**\* \* \* \***

**\* \* \* \* \***

**\* \* \* \* \***

**\* \* \* \***

**\* \* \***

**\* \***

**\***

class StarP{

public static void main(String args[])

{

for(int r=1;r<=5;r++)

{

for(int c=1;c<=r;c++)

{

System.out.print("\* ");

}

System.out.println();

}

for(int r=4;r>=1;r--)

{

for(int c=1;c<=r;c++)

{

System.out.print("\* ");

}

System.out.println();

}

}

}

36  **\***

**\* \***

**\* \***

**\* \***

**\* \***

**\* \***

**\* \***

**\* \***

**\***

class StarP{

public static void main(String args[])

{

for(int r=1;r<=5;r++)

{

for(int c=1;c<=r;c++)

{

if(c==1 || c==r)

{

System.out.print("\* ");

}

else{

System.out.print(" ");

}

}

System.out.println();

}

for(int r=4;r>=1;r--)

{

for(int c=1;c<=r;c++)

{

if(c==1 || c==r)

{

System.out.print("\* ");

}

else{

System.out.print(" ");

}

}

System.out.println();

}

}

}

//37

\*

\* \*

\* \* \*

\* \* \* \*

public class Star {

public static void main(String[] args)

{

for(int i=1;i<=4;i++)

{

for(int j=1;j<=4-i;j++)

{

System.out.print(" ");

}

for(int j=1;j<=i;j++)

{

System.out.print("\*");

}

System.out.println();

}

}

}

//Q5 **\***

**# #**

**\* \* \***

**# # # #**

**\* \* \* \* \***

class StarP{

public static void main(String args[])

{

for(int r=1;r<=5;r++)

{

for(int c=1;c<=r;c++)

{

if(r%2==0)

{

System.out.print("# ");

}

else{

System.out.print("\* ");

}

}

System.out.println();

}

}

}

//38 **\***

**\* \***

**\* \***

**\* \***

**\* \***

class StarP{

public static void main(String args[])

{

for(int r=1;r<=5;r++)

{

for(int c=1;c<=r;c++)

{

if(c==1 || c==r)

{

System.out.print("\* ");

}

else{

System.out.print(" ");

}

}

System.out.println();

}

}

}

//39

\* \* \* \* \*

\* \* \* \*

\* \* \*

\* \*

\*

public class Rev {

public static void main(String[] args)

{

for(int i=5;i>=1;i--)

{

for(int j=1;j<=5-i;j++)

{

System.out.print(" ");

}

for(int j=1;j<=i;j++)

{

System.out.print("\*");

}

System.out.println();

}

}

}

//40

**\* \***

**\*\* \*\***

**\*\*\* \*\*\***

**\*\*\*\* \*\*\*\***

**\*\*\*\*\*\*\*\*\*\***

**\*\*\*\*\*\*\*\*\*\***

**\*\*\*\* \*\*\*\***

**\*\*\* \*\*\***

**\*\* \*\***

**\* \***

class Butterfly{

public static void main(String args[])

{

int i,j,n=5;

for(i=1;i<=n;i++)

{

for(j=1;j<=i;j++)

{

System.out.print("\*");

}

int sp=2\*(n-i);

for(j=1;j<=sp;j++)

{

System.out.print(" ");

}

for(j=1;j<=i;j++)

{

System.out.print("\*");

}

System.out.println();

}

for(i=n;i>=1;i--)

{

for(j=1;j<=i;j++)

{

System.out.print("\*");

}

int sp=2\*(n-i);

for(j=1;j<=sp;j++)

{

System.out.print(" ");

}

for(j=1;j<=i;j++)

{

System.out.print("\*");

}

System.out.println();

}

}

}

//41

**\***

**\* \***

**\* \* \***

**\* \* \* \***

**\* \* \* \* \***

class Pyramid {

public static void main(String[] args) {

int n=5;

for(int i=1;i<=n;i++)

{

for(int sp=n-i;sp>=1;sp--)

{

System.out.print(" ");

}

for(int j=1;j<=i;j++)

{

System.out.print("\* ");

}

System.out.println();

}

}

}

//42

//42

\* \* \* \* \*

\* \* \* \*

\* \* \*

\* \*

\*

class Pyramid {

public static void main(String[] args) {

int n=5;

for(int i=n;i>=1;i--)

{

for(int sp=n-i;sp>=1;sp--)

{

System.out.print(" ");

}

for(int j=1;j<=i;j++)

{

System.out.print(" \*");

}

System.out.println();

}

}

}

**//43**

**\***

**\* \***

**\* \* \***

**\* \* \* \***

**\* \* \* \* \***

**\* \* \* \* \***

**\* \* \* \***

**\* \* \***

**\* \***

**\***

class Pyramid {

public static void main(String[] args) {

int n=5;

for(int i=1;i<=n;i++)

{

for(int sp=n-i;sp>=1;sp--)

{

System.out.print(" ");

}

for(int j=1;j<=i;j++)

{

System.out.print(" \*");

}

System.out.println();

}

for(int i=5;i>=1;i--)

{

for(int sp=5-i;sp>=1;sp--)

{

System.out.print(" ");

}

for(int j=1;j<=i;j++)

{

System.out.print(" \*");

}

System.out.println();

}

}

}

**//44**

**1**

**1 2**

**1 2 3**

**1 2 3 4**

class NumP

{

public static void main(String args[])

{

int n=4;

for(int r=1;r<=n;r++)

{

for(int c=1;c<=r;c++)

{

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

}

System.out.println();

}

}

}

**//45**

**1**

**2 2**

**3 3 3**

**4 4 4 4**

**5 5 5 5 5**

class NumP

{

public static void main(String args[])

{

int n=5;

for(int r=1;r<=n;r++)

{

for(int c=1;c<=r;c++)

{

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

}

System.out.println();

}

}

}

**//49**

**1 1 1 1 1**

**2 2 2 2 2**

**3 3 3 3 3**

**4 4 4 4 4**

**5 5 5 5 5**

class NumP

{

public static void main(String args[])

{

int n=5;

for(int r=1;r<=n;r++)

{

for(int c=1;c<=n;c++)

{

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

}

System.out.println();

}

}

}

**//50**

**1**

**2 3**

**4 5 6**

**7 8 9 10**

class NumP

{

public static void main(String args[])

{

int n=4,k=1;

for(int r=1;r<=n;r++)

{

for(int c=1;c<=r;c++)

{

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

k++;

}

System.out.println();

}

}

}

**//51**

**1**

**1 0 1**

**1 0 1 0**

public class numpat {

public static void main(String[] args)

{

int k;

for(int i =1;i<=4;i++)

{

for(int j=1;j<=i;j++)

{

k=(j%2==0)? 0:1;

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

}

System.out.println();

}

}

}

**//Q**

**1 2 3 4**

**5 6 7 8**

**9 10 11 12**

**13 14 15 16**

public class numpat {

public static void main(String[] args)

{

for(int i =1;i<=4;i++)

{

for(int j=1;j<=4;j++)

{

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

k++;

}

System.out.println();

}

}

}

**//Q**

**1 0 0 0**

**0 1 0 0**

**0 0 1 0**

**0 0 0 1**

public class numpat {

public static void main(String[] args)

{

int k;

for(int i =1;i<=4;i++)

{

for(int j=1;j<=4;j++)

{

k=(i==j)? 1:0;

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

}

System.out.println();

}

}

}

**//Q**

**4 4 4 4**

**3 3 3**

**2 2**

**1**

public class numpat {

public static void main(String[] args)

{

for(int i =4;i>=1;i--)

{

for(int j=1;j<=i;j++)

{

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

}

System.out.println();

}

}

}

**//Q**

**4 3 2 1**

**4 3 2**

**4 3**

**4**

public class numpat {

public static void main(String[] args)

{

for(int i =1;i<=4;i++)

{

for(int j=4;j>=i;j--)

{

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

}

System.out.println();

}

}

}

**61)Write a program to accept numbers from user and display in an array.**

import java.util.Scanner;

public class Array {

int a[]=new int[5];

int i;

Scanner sc=new Scanner(System.***in***);

void accept()

{

for(i=0;i<=4;i++)

{

System.***out***.print("Enter a number: ");

a[i]=sc.nextInt();

}

}

void display()

{

System.***out***.print("Array: ");

for(i=0;i<=4;i++)

{

System.***out***.print(a[i]+" ");

}

System.***out***.println();

}

public static void main(String[] args) {

// **TODO** Auto-generated method stub

Array ap=new Array();

ap.accept();

ap.display();

}

}

**Output:-**

Enter a number: 1

Enter a number: 2

Enter a number: 3

Enter a number: 4

Enter a number: 5

Array: 1 2 3 4 5

62) Write a program to accept numbers from user and display sum of elements of array.

import java.util.Scanner;

public class Array {

int a[]=new int[5];

int i;

Scanner sc=new Scanner(System.***in***);

void accept()

{

for(i=0;i<=4;i++)

{

System.***out***.print("Enter a number: ");

a[i]=sc.nextInt();

}

}

void display()

{

System.***out***.print("Array: ");

for(i=0;i<=4;i++)

{

System.***out***.print(a[i]+" ");

}

System.***out***.println();

}

void add()

{

int sum=0;

for(i=0;i<=4;i++)

{

sum=sum+a[i];

}

System.***out***.println("Addition: "+sum);

}

public static void main(String[] args) {

// **TODO** Auto-generated method stub

Array ap=new Array();

ap.accept();

ap.display();

ap.add();

}

}

Output:-

Enter a number: 1

Enter a number: 2

Enter a number: 3

Enter a number: 4

Enter a number: 5

Array: 1 2 3 4 5

Addition: 15

63) Write a program to accept numbers from user and reverse an array and display.

import java.util.Scanner;

public class Array {

int n[]=new int[5];

int i;

Scanner sc=new Scanner(System.***in***);

void accept()

{

for(i=0;i<=4;i++)

{

System.***out***.print("Enter a number: ");

n[i]=sc.nextInt();

}

}

void display()

{

System.***out***.print("Array: ");

for(i=0;i<=4;i++)

{

System.***out***.print(n[i]+" ");

}

System.***out***.println();

}

void displayR()

{

System.***out***.print("Reverse Array: ");

for(i=4;i>=0;i--)

{

System.***out***.print(n[i]+" ");

}

System.***out***.println();

}

public static void main(String[] args) {

// **TODO** Auto- generated method stub

Array r=new Array();

r.accept();

r.display();

r.displayR();

}

}

Output:-

Enter a number: 1

Enter a number: 2

Enter a number: 3

Enter a number: 4

Enter a number: 5

Array: 1 2 3 4 5

Reverse Array: 5 4 3 2 1

64)Write a program to accept number from user and display only even numbers from an array.

import java.util.Scanner;

public class Array {

int n[]=new int[5];

int i;

Scanner sc=new Scanner(System.***in***);

void accept()

{

for(i=0;i<=4;i++)

{

System.***out***.print("Enter a number: ");

n[i]=sc.nextInt();

}

}

void display()

{

System.***out***.print("Array: ");

for(i=0;i<=4;i++)

{

System.***out***.print(n[i]+" ");

}

System.***out***.println();

}

void even()

{

System.***out***.print("Even number in array: ");

for(i=0;i<=4;i++)

{

if(n[i]%2==0)

{

System.***out***.print(n[i]+" ");

}

}

}

public static void main(String[] args) {

// **TODO** Auto- generated method stub

Array r=new Array();

r.accept();

r.display();

r.even();

}

}

Output:-

Enter a number: 1

Enter a number: 2

Enter a number: 3

Enter a number: 4

Enter a number: 5

Array: 1 2 3 4 5

Even number in array: 2 4

65)Write a program to accept number from user and display only odd numbers from an array.

import java.util.Scanner;

public class Array {

int n[]=new int[5];

int i;

Scanner sc=new Scanner(System.***in***);

void accept()

{

for(i=0;i<=4;i++)

{

System.***out***.print("Enter a number: ");

n[i]=sc.nextInt();

}

}

void display()

{

System.***out***.print("Array: ");

for(i=0;i<=4;i++)

{

System.***out***.print(n[i]+" ");

}

System.***out***.println();

}

void odd()

{

System.***out***.print("odd number in array: ");

for(i=0;i<=4;i++)

{

if(n[i]%2!=0)

{

System.***out***.print(n[i]+" ");

}

}

System.***out***.println();

}

public static void main(String[] args) {

// **TODO** Auto- generated method stub

Array r=new Array();

r.accept();

r.display();

r.odd();

}

}

Output:-

Enter a number: 1

Enter a number: 2

Enter a number: 3

Enter a number: 4

Enter a number: 5

Array: 1 2 3 4 5

odd number in array: 1 3 5

66)Write a program to accept number from user and display only numbers which are at even position from an array.

import java.util.Scanner;

public class Array {

int n[]=new int[5];

int i;

Scanner sc=new Scanner(System.***in***);

void accept()

{

for(i=0;i<=4;i++)

{

System.***out***.print("Enter a number: ");

n[i]=sc.nextInt();

}

}

void display()

{

System.***out***.print("Array: ");

for(i=0;i<=4;i++)

{

System.***out***.print(n[i]+" ");

}

System.***out***.println();

}

void even()

{

System.***out***.print("Even position: ");

for(i=1;i<5;i=i+2)

{

System.***out***.print(n[i]+" ");

}

System.***out***.println();

}

public static void main(String[] args) {

// **TODO** Auto- generated method stub

Array r=new Array();

r.accept();

r.display();

r.even();

}

}

Output:-

Enter a number: 1

Enter a number: 2

Enter a number: 3

Enter a number: 4

Enter a number: 5

Array: 1 2 3 4 5

Even position: 2 4

67)Write a program to accept number from user and display only numbers which are at odd position from an array.

import java.util.Scanner;

public class Array {

int n[]=new int[5];

int i;

Scanner sc=new Scanner(System.***in***);

void accept()

{

for(i=0;i<=4;i++)

{

System.***out***.print("Enter a number: ");

n[i]=sc.nextInt();

}

}

void display()

{

System.***out***.print("Array: ");

for(i=0;i<=4;i++)

{

System.***out***.print(n[i]+" ");

}

System.***out***.println();

}

void odd()

{

System.***out***.print("Odd position: ");

for(i=0;i<5;i=i+2)

{

System.***out***.print(n[i]+" ");

}

}

public static void main(String[] args) {

// **TODO** Auto- generated method stub

Array r=new Array();

r.accept();

r.display();

r.odd();

}

}

Output:-

Enter a number: 1

Enter a number: 2

Enter a number: 3

Enter a number: 4

Enter a number: 5

Array: 1 2 3 4 5

Odd position: 1 3 5

68) Write a program to accept number from user and print duplicate element from an array.

import java.util.Scanner;

public class Array {

int n[]=new int[5];

int i;

Scanner sc=new Scanner(System.***in***);

void accept()

{

for(i=0;i<=4;i++)

{

System.***out***.print("Enter a number: ");

n[i]=sc.nextInt();

}

}

void display()

{

System.***out***.print("Array: ");

for(i=0;i<=4;i++)

{

System.***out***.print(n[i]+" ");

}

System.***out***.println();

}

void same()

{

System.***out***.print("Duplicate number: ");

for(i=0;i<n.length;i++)

{

for(int j=i+1;j<n.length;j++)

{

if(n[i]==n[j])

{

System.***out***.print(n[j]+" ");

}

}

}

}

public static void main(String[] args) {

// **TODO** Auto- generated method stub

Array r=new Array();

r.accept();

r.display();

r.same();

}

}

Output:-

Enter a number: 1

Enter a number: 2

Enter a number: 3

Enter a number: 2

Enter a number: 4

Array: 1 2 3 2 4

Duplicate number: 2

69) Write a program to accept number from user and find out largest element in an array.

import java.util.Scanner;

public class Array {

int n[]=new int[5];

int i;

Scanner sc=new Scanner(System.***in***);

void accept()

{

for(i=0;i<=4;i++)

{

System.***out***.print("Enter a number: ");

n[i]=sc.nextInt();

}

}

void display()

{

System.***out***.print("Array: ");

for(i=0;i<=4;i++)

{

System.***out***.print(n[i]+" ");

}

System.***out***.println();

}

void large()

{

int max=n[0];

for(i=0;i<n.length;i++)

{

if(n[i]>max)

{

max=n[i];

}

}

System.***out***.println("Max: "+max);

}

public static void main(String[] args) {

// **TODO** Auto- generated method stub

Array r=new Array();

r.accept();

r.display();

r.large();

}

}

Output:-

Enter a number: 5

Enter a number: 2

Enter a number: 9

Enter a number: 3

Enter a number: 7

Array: 5 2 9 3 7

Max: 9

70) Write a program to accept number from user and find out smallest element in an array.

import java.util.Scanner;

public class Array {

int n[]=new int[5];

int i;

Scanner sc=new Scanner(System.***in***);

void accept()

{

for(i=0;i<=4;i++)

{

System.***out***.print("Enter a number: ");

n[i]=sc.nextInt();

}

}

void display()

{

System.***out***.print("Array: ");

for(i=0;i<=4;i++)

{

System.***out***.print(n[i]+" ");

}

System.***out***.println();

}

void small()

{

int min=n[0];

for(i=0;i<n.length;i++)

{

if(n[i]<min)

{

min=n[i];

}

}

System.***out***.println("Min: "+min);

}

public static void main(String[] args) {

// **TODO** Auto- generated method stub

Array r=new Array();

r.accept();

r.display();

r.small();

}

}

Output:-

Enter a number: 3

Enter a number: 2

Enter a number: 1

Enter a number: 8

Enter a number: 5

Array: 3 2 1 8 5

Min: 1

71)Write a program to copy array and print and array in another array.

import java.util.Scanner;

public class Array {

int n1[]=new int[5];

int n2[]=new int[n1.length];

int i;

Scanner sc=new Scanner(System.***in***);

void accept()

{

for(i=0;i<=4;i++)

{

System.***out***.print("Enter a number: ");

n1[i]=sc.nextInt();

}

}

void display()

{

System.***out***.print("Array: ");

for(i=0;i<=4;i++)

{

System.***out***.print(n1[i]+" ");

}

System.***out***.println();

}

void copy()

{

for(i=0;i<n1.length;i++)

{

n2[i]=n1[i];

}

}

void Cdisplay()

{

System.***out***.print("Clone Array: ");

for(i=0;i<=4;i++)

{

System.***out***.print(n2[i]+" ");

}

System.***out***.println();

}

public static void main(String[] args) {

// **TODO** Auto- generated method stub

Array r=new Array();

r.accept();

r.display();

r.copy();

r.Cdisplay();

}

}

Output:-

Enter a number: 1

Enter a number: 2

Enter a number: 3

Enter a number: 4

Enter a number: 5

Array: 1 2 3 4 5

Clone Array: 1 2 3 4 5

72)Sort an array in ascending order and descending order .

import java.util.Scanner;

public class Array {

int n[]=new int[5];

int i;

Scanner sc=new Scanner(System.***in***);

void accept()

{

for(i=0;i<=4;i++)

{

System.***out***.print("Enter a number: ");

n[i]=sc.nextInt();

}

}

void display()

{

System.***out***.print("Array: ");

for(i=0;i<=4;i++)

{

System.***out***.print(n[i]+" ");

}

System.***out***.println();

}

void sortAs()

{

int temp=0;

for(i=0;i<n.length;i++)

{

for(int j=i+1;j<n.length;j++)

{

if(n[i]>n[j])

{

temp=n[i];

n[i]=n[j];

n[j]=temp;

}

}

}

}

void SAdisplay()

{

System.***out***.print("Ascending Array: ");

for(i=0;i<=4;i++)

{

System.***out***.print(n[i]+" ");

}

System.***out***.println();

}

void sortDs()

{

int temp=0;

for(i=0;i<n.length;i++)

{

for(int j=i+1;j<n.length;j++)

{

if(n[i]<n[j])

{

temp=n[i];

n[i]=n[j];

n[j]=temp;

}

}

}

}

void SDdisplay()

{

System.***out***.print("descending Array: ");

for(i=0;i<=4;i++)

{

System.***out***.print(n[i]+" ");

}

System.***out***.println();

}

public static void main(String[] args) {

// **TODO** Auto- generated method stub

Array r=new Array();

r.accept();

r.display();

r.sortAs();

r.SAdisplay();

r.sortDs();

r.SDdisplay();

}

}

Output:-

Enter a number: 1

Enter a number: 5

Enter a number: 3

Enter a number: 2

Enter a number: 4

Array: 1 5 3 2 4

Ascending Array: 1 2 3 4 5

descending Array: 5 4 3 2 1

73)Write program for linear search.

import java.util.Scanner;

public class Array {

int n[]=new int[5];

int i;

int element=2;

Scanner sc=new Scanner(System.***in***);

void accept()

{

for(i=0;i<=4;i++)

{

System.***out***.print("Enter a number: ");

n[i]=sc.nextInt();

}

}

void display()

{

System.***out***.print("Array: ");

for(i=0;i<=4;i++)

{

System.***out***.print(n[i]+" ");

}

System.***out***.println();

}

void search()

{

int position=-1;

for(i=0;i<=4;i++)

{

if(n[i]==element)

{

position=i;

break;

}

}

if(position!=-1)

{

System.***out***.print(element+" found at position "+(position+1));

}

else

{

System.***out***.print(element+" not found ");

}

}

public static void main(String[] args) {

// **TODO** Auto- generated method stub

Array r=new Array();

r.accept();

r.display();

r.search();

}

}

Output:-

Enter a number: 1

Enter a number: 3

Enter a number: 2

Enter a number: 5

Enter a number: 4

Array: 1 3 2 5 4

2 found at position 3

74)Write program for binary search.

import java.util.Scanner;

public class Array {

int a[]=new int[5];

int i,element=5;

int low=0,high=(a.length-1);

int mid=(low+high)/2;

Scanner sc=new Scanner(System.***in***);

void accept()

{

for(i=0;i<=4;i++)

{

System.***out***.print("Enter a number: ");

a[i]=sc.nextInt();

}

}

void binary()

{

while(low<=high)

{

if(a[mid]==element)

{

System.***out***.print(element+" present at index "+mid);

break;

}

else if(a[mid]<element)

{

low=mid+1;

high=high;

}

else

{

high=mid-1;

low=low;

}

mid=(low+high)/2;

}

if(low>high)

{

System.***out***.print(element+" not present");

}

}

public static void main(String[] args) {

// **TODO** Auto- generated method stub

Array b=new Array();

b.accept();

b.binary();

}

}

Output:-

Enter a number: 1

Enter a number: 3

Enter a number: 5

Enter a number: 6

Enter a number: 2

5 present at index 2

75)Write program to find prime number from -20 to 100.

public class Array {

public static void main(String[] args)

{

int n=0,j=0;

for(j=-20;j<=200;j++)

{

int temp=0;

for(n=j;n>=1;n--)

{

if(j%n==0)

{

temp=temp+1;

}

}

if(temp==2)

{

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

}

}

}

}

Output:-

2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97 101 103 107 109 113 127 131 137 139 149 151 157 163 167 173 179 181 191 193 197 199

76)Write program to find Armstrong number from 1 to 100.

public class Armstrong

{

public static void main(String[] args)

{

int high=100;

for(int number =1; number < high; ++number)

{

int digits = 0;

int result = 0;

int originalNumber = number;

while (originalNumber != 0) {

originalNumber /= 10;

++digits;

}

originalNumber = number;

while (originalNumber != 0)

{

int remainder = originalNumber % 10;

result += Math.*pow*(remainder, digits);

originalNumber /= 10;

}

if (result == number)

{

System.***out***.print(number + " ");

}

}

}

}

Output:-

1 2 3 4 5 6 7 8 9

77) Write program for bubble sort.

public class Array {

public static void main(String[] args) {

// **TODO** Auto- generated method stub

int a[]=new int[] {2,5,3,9,4};

int temp;

for(int i=0;i<a.length-1;i++)

{

for(int j=1;j<a.length- i;j++)

{

System.***out***.println();

System.***out***.println(a[j-1]+ " Compare with "+a[j]);

if(a[j-1]>a[j])

{

temp=a[j-1];

a[j-1]=a[j];

a[j]=temp;

}

}

System.***out***.println("After Sorting "+(i+1));

for(int k=0;k<a.length;k++)

{

System.***out***.print(a[k]+" ");

}

}

}

}

Output:-

2 Compare with 5

5 Compare with 3

5 Compare with 9

9 Compare with 4

After Sorting 1

2 3 5 4 9

2 Compare with 3

3 Compare with 5

5 Compare with 4

After Sorting 2

2 3 4 5 9

2 Compare with 3

3 Compare with 4

After Sorting 3

2 3 4 5 9

2 Compare with 3

After Sorting 4

2 3 4 5 9

78)Write program for selection sort.

public class Array {

public static void main(String[] args) {

int a[]=new int[] {45,78,65,32,99};

int temp;

int i;

int loc;

for(i=0;i<a.length;i++)

{

loc=i;

for(int j=i+1;j<a.length;j++)

{

if(a[j]<a[loc])

{

loc=j;

}

}

temp=a[loc];

a[loc]=a[i];

a[i]=temp;

}

for(i=0;i<a.length;i++)

{

System.***out***.print(a[i]+" ");

}

}

}

Output:-

32 45 65 78 99

79)Write a program to merge two array and print them in another array.

import java.util.Arrays;

public class Array {

public static void main(String[] args) {

int a[]= {10,20,30,40,50};

int b[]= {60,70,80,90,100};

int a1=a.length;

int b1=b.length;

int c1=a1+b1;

int c[]=new int[c1];

System.*arraycopy*(a, 0, c, 0, a1);

System.*arraycopy*(b, 0, c, a1, b1);

System.***out***.println(Arrays.*toString*(c));

}

}

Output:-

[10, 20, 30, 40, 50, 60, 70, 80, 90, 100]

80)Write a program to delete an element from given array.

public class Array

{

public static void main(String[] args) {

int originalArray[]= {1,2,3,4,5};

int removeindex=2;

for(int i=removeindex;i<originalArray.length-1;i++)

{

originalArray[i]=originalArray[i+1];

}

originalArray[originalArray.length-1]=0;

for(int value:originalArray)

{

System.***out***.print(value+" ");

}

}

}

Output:-

1 2 4 5 0

81)Write a program to display multi-dimensional array (2x2,3x3).

**package** Array;

**import** java.util.Scanner;

**public** **class** Display {

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

// **TODO** Auto-generated method stub

Scanner sc=**new** Scanner(System.***in***);

**int** r,c,i,j;

System.***out***.print("Enter rows: ");

r=sc.nextInt();

System.***out***.print("Enter cols: ");

c=sc.nextInt();

**int** a[][]=**new** **int**[r][c];

System.***out***.print("Enter elements: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

a[i][j]=sc.nextInt();

}

}

System.***out***.println("Array: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

System.***out***.print(a[i][j]+" ");

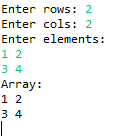
}

System.***out***.println();

}

}

}



83)Print array:

1 2 3 4

5 6 7 8

**package** Array;

**import** java.util.Scanner;

**public** **class** Display {

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

// **TODO** Auto-generated method stub

Scanner sc=**new** Scanner(System.***in***);

**int** r=2,c=4,i,j;

**int** a[][]=**new** **int**[r][c];

System.***out***.print("Enter elements: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

a[i][j]=sc.nextInt();

}

}

System.***out***.println("Array: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

System.***out***.print(a[i][j]+" ");

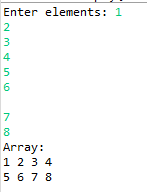
}

System.***out***.println();

}

}

}



84)Write a program for sum of rows and column in array

**package** Array;

**import** java.util.Scanner;

**public** **class** Display {

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

// **TODO** Auto-generated method stub

Scanner sc=**new** Scanner(System.***in***);

**int** r,c,i,j;

System.***out***.print("Enter rows: ");

r=sc.nextInt();

System.***out***.print("Enter cols: ");

c=sc.nextInt();

**int** a[][]=**new** **int**[r][c];

System.***out***.print("Enter elements: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

a[i][j]=sc.nextInt();

}

}

System.***out***.println("Array: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

System.***out***.print(a[i][j]+" ");

}

System.***out***.println();

}

System.***out***.println("Row addition: ");

**for**(i=0;i<r;i++)

{

**int** rsum=0;

**for**(j=0;j<c;j++)

{

rsum=rsum+a[i][j];

}

System.***out***.println("Row "+(i+1)+" = "+rsum);

}

System.***out***.println("Column addition: ");

**for**(i=0;i<r;i++)

{

**int** csum=0;

**for**(j=0;j<c;j++)

{

csum=csum+a[j][i];

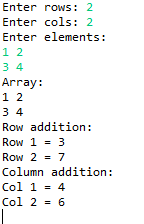
}

System.***out***.println("Col "+(i+1)+" = "+csum);

}

}

}



85)Write a program for total sum of an 2D array.

**package** Array;

**import** java.util.Scanner;

**public** **class** Display {

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

// **TODO** Auto-generated method stub

Scanner sc=**new** Scanner(System.***in***);

**int** r,c,i,j;

System.***out***.print("Enter rows: ");

r=sc.nextInt();

System.***out***.print("Enter cols: ");

c=sc.nextInt();

**int** a[][]=**new** **int**[r][c];

System.***out***.print("Enter elements: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

a[i][j]=sc.nextInt();

}

}

System.***out***.println("Array: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

System.***out***.print(a[i][j]+" ");

}

System.***out***.println();

}

**int** total=0;

System.***out***.println("Row addition: ");

**for**(i=0;i<r;i++)

{

**int** rsum=0;

**for**(j=0;j<c;j++)

{

rsum=rsum+a[i][j];

}

total+=rsum;

System.***out***.println("Row "+(i+1)+" = "+rsum);

}

System.***out***.println("Column addition: ");

**for**(i=0;i<r;i++)

{

**int** csum=0;

**for**(j=0;j<c;j++)

{

csum=csum+a[j][i];

}

total+=csum;

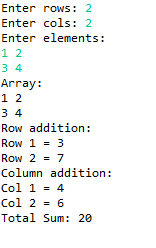
System.***out***.println("Col "+(i+1)+" = "+csum);

}

System.***out***.print("Total Sum: "+total);

}

}



86)Write program to add two matrices(2x2,3x3).

**package** Array;

**import** java.util.Scanner;

**public** **class** Display {

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

// **TODO** Auto-generated method stub

Scanner sc=**new** Scanner(System.***in***);

**int** r,c,i,j;

System.***out***.print("Enter rows: ");

r=sc.nextInt();

System.***out***.print("Enter cols: ");

c=sc.nextInt();

**int** a[][]=**new** **int**[r][c];

**int** b[][]=**new** **int**[r][c];

**int** add[][]=**new** **int**[3][3];

System.***out***.print("Enter elements for array 1: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

a[i][j]=sc.nextInt();

}

}

System.***out***.print("Enter elements for array 2: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

b[i][j]=sc.nextInt();

}

}

System.***out***.println("Addition: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

add[i][j]=a[i][j]+b[i][j];

System.***out***.print(add[i][j]+" ");

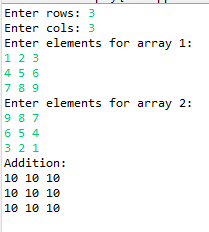
}

System.***out***.println();

}

}

}



87)Write a program for multiplication of 2D array.

**package** Array;

**import** java.util.Scanner;

**public** **class** twod {

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

// **TODO** Auto-generated method stub

Scanner sc=**new** Scanner(System.***in***);

**int** r,c,i,j;

System.***out***.print("Enter rows: ");

r=sc.nextInt();

System.***out***.print("Enter cols: ");

c=sc.nextInt();

**int** a[][]=**new** **int**[r][c];

**int** b[][]=**new** **int**[r][c];

**int** mul[][]=**new** **int**[3][3];

System.***out***.print("Enter elements for array 1: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

a[i][j]=sc.nextInt();

}

}

System.***out***.print("Enter elements for array 2: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

b[i][j]=sc.nextInt();

}

}

System.***out***.println("Multiply: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

**for**(**int** k=0;k<2;k++)

{

mul[i][j]=mul[i][j]+a[i][k]\*b[k][j];

}

System.***out***.print(mul[i][j]+" ");

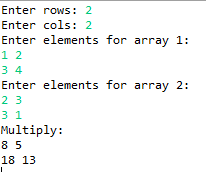
}

System.***out***.println();

}

}

}



88) Write a program for multiplication of 3D array.

**package** Array;

**import** java.util.Scanner;

**public** **class** twod {

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

// **TODO** Auto-generated method stub

Scanner sc=**new** Scanner(System.***in***);

**int** r=3,c=3,i,j;

**int** a[][]=**new** **int**[r][c];

**int** b[][]=**new** **int**[r][c];

**int** mul[][]=**new** **int**[3][3];

System.***out***.print("Enter elements for array 1: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

a[i][j]=sc.nextInt();

}

}

System.***out***.print("Enter elements for array 2: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

b[i][j]=sc.nextInt();

}

}

System.***out***.println("Multiply: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

**for**(**int** k=0;k<3;k++)

{

mul[i][j]=mul[i][j]+a[i][k]\*b[k][j];

}

System.***out***.print(mul[i][j]+" ");

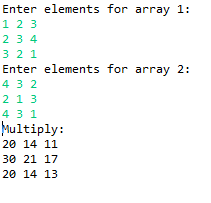
}

System.***out***.println();

}

}

}



89)Write a program for multiplication of 2x3 matrix to 3x2 matrix.

**package** Array;

**import** java.util.Scanner;

**public** **class** twod {

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

// **TODO** Auto-generated method stub

**int** i,j;

**int** a[][]= {{1,2,3},{2,3,4}};

**int** b[][]={{7,8},{3,4},{2,4}};

**int** mul[][]=**new** **int**[3][3];

System.***out***.println("Array 1: ");

**for**(i=0;i<2;i++)

{

**for**(j=0;j<3;j++)

{

System.***out***.print(a[i][j]+" ");

}

System.***out***.println();

}

System.***out***.println("Array 2: ");

**for**(i=0;i<3;i++)

{

**for**(j=0;j<2;j++)

{

System.***out***.print(b[i][j]+" ");

}

System.***out***.println();

}

System.***out***.println("Multiply: ");

**for**(i=0;i<2;i++)

{

**for**(j=0;j<2;j++)

{

mul[i][j]=0;

**for**(**int** k=0;k<3;k++)

{

mul[i][j]=mul[i][j]+a[i][k]\*b[k][j];

}

System.***out***.print(mul[i][j]+" ");

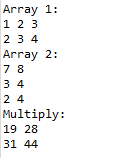
}

System.***out***.println();

}

}

}



90) Write a program for multiplication of 3x2 matrix to 2x3 matrix.

**package** Array;

**import** java.util.Scanner;

**public** **class** twod {

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

// **TODO** Auto-generated method stub

**int** i,j;

**int** a[][]={{7,8},{3,4},{2,4}};

**int** b[][]= {{1,2,3},{2,3,4}};

**int** mul[][]=**new** **int**[3][3];

System.***out***.println("Array 1: ");

**for**(i=0;i<3;i++)

{

**for**(j=0;j<2;j++)

{

System.***out***.print(a[i][j]+" ");

}

System.***out***.println();

}

System.***out***.println("Array 2: ");

**for**(i=0;i<2;i++)

{

**for**(j=0;j<3;j++)

{

System.***out***.print(b[i][j]+" ");

}

System.***out***.println();

}

System.***out***.println("Multiply: ");

**for**(i=0;i<3;i++)

{

**for**(j=0;j<3;j++)

{

mul[i][j]=0;

**for**(**int** k=0;k<2;k++)

{

mul[i][j]=mul[i][j]+a[i][k]\*b[k][j];

}

System.***out***.print(mul[i][j]+" ");

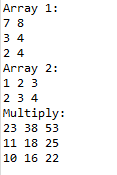
}

System.***out***.println();

}

}

}



91)Write a program for transpose of an array.

**package** Array;

**import** java.util.Scanner;

**public** **class** Display {

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

// **TODO** Auto-generated method stub

Scanner sc=**new** Scanner(System.***in***);

**int** r,c,i,j;

System.***out***.print("Enter rows: ");

r=sc.nextInt();

System.***out***.print("Enter cols: ");

c=sc.nextInt();

**int** a[][]=**new** **int**[r][c];

System.***out***.print("Enter elements: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

a[i][j]=sc.nextInt();

}

}

System.***out***.println("Array: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

System.***out***.print(a[i][j]+" ");

}

System.***out***.println();

}

System.***out***.println("Transpose: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

System.***out***.print(a[j][i]+" ");

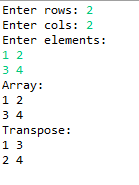
}

System.***out***.println();

}

}

}



93) Write program to subtract two matrices(2x2,3x3).

**package** Array;

**import** java.util.Scanner;

**public** **class** Display {

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

// **TODO** Auto-generated method stub

Scanner sc=**new** Scanner(System.***in***);

**int** r,c,i,j;

System.***out***.print("Enter rows: ");

r=sc.nextInt();

System.***out***.print("Enter cols: ");

c=sc.nextInt();

**int** a[][]=**new** **int**[r][c];

**int** b[][]=**new** **int**[r][c];

**int** sub[][]=**new** **int**[3][3];

System.***out***.print("Enter elements for array 1: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

a[i][j]=sc.nextInt();

}

}

System.***out***.print("Enter elements for array 2: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

b[i][j]=sc.nextInt();

}

}

System.***out***.println("Subtraction: ");

**for**(i=0;i<r;i++)

{

**for**(j=0;j<c;j++)

{

sub[i][j]=a[i][j]-b[i][j];

System.***out***.print(sub[i][j]+" ");

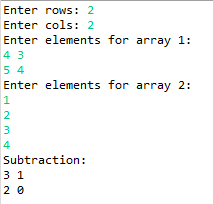
}

System.***out***.println();

}

}

}



94)Write program for rotate an array from Right to Left.

**package** Array;

**import** java.util.Scanner;

**public** **class** Display {

Scanner sc=**new** Scanner(System.***in***);

**int** a[]=**new** **int**[5];

**int** first,last;

**int** r=1,i,j;

**void** accept()

{

System.***out***.print("Enter elements: ");

**for**(i=0;i<=4;i++)

{

a[i]=sc.nextInt();

}

System.***out***.print("Array: ");

**for**(i=0;i<=4;i++)

{

System.***out***.print(a[i]+" ");

}

System.***out***.println();

}

**void** Rrotate()

{

**for**(i=0;i<r;i++)

{

last=a[a.length-1];

**for**(j=a.length-1;j>0;j--)

{

a[j]=a[j-1];

}

a[0]=last;

}

System.***out***.println("Array after Right rotate: ");

**for**(i=0;i<=4;i++)

{

System.***out***.print(a[i]+" ");

}

}

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

// **TODO** Auto-generated method stub

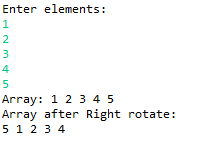
Display d=**new** Display();

d.accept();

d.Rrotate();

}

}



95) Write program for rotate an array from Left to Right.

**package** Array;

**import** java.util.Scanner;

**public** **class** Display {

Scanner sc=**new** Scanner(System.***in***);

**int** a[]=**new** **int**[5];

**int** first,last;

**int** r=1,i,j;

**void** accept()

{

System.***out***.print("Enter elements: ");

**for**(i=0;i<=4;i++)

{

a[i]=sc.nextInt();

}

System.***out***.print("Array: ");

**for**(i=0;i<=4;i++)

{

System.***out***.print(a[i]+" ");

}

System.***out***.println();

}

**void** Lrotate()

{

**for**(i=0;i<r;i++)

{

first=a[0];

**for**(j=0;j<a.length-1;j++)

{

a[j]=a[j+1];

}

a[j]=first;

}

System.***out***.print("Array after left rotate: ");

**for**(i=0;i<=4;i++)

{

System.***out***.print(a[i]+" ");

}

}

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

// **TODO** Auto-generated method stub

Display d=**new** Display();

d.accept();

d.Lrotate();

}

}

