TO TAKE INPUT FROM THE COMMAND LINE

PROGRAM:

```
import java.io.*;

class Subject

{

public static void main(String args[])

{

int count=args.length;

int i=0;

int s=0;

System.out.println("The subjects offered in semester 3 are ");

while(i<count)

{

s=s+i;

i++;

System.out.println(args[i]);

}

}

}
```

OUTPUT:

D:\Aniket JAVA>java Subject DAS OOPM ECCF DLDA AM3 DM

The subjects offered in semester 3 are

DAS

OOPM

ECCF

DLDA

AM3

DM

TO FIND ROOTS OF A QUADRATIC EQUATION

Program:

```java
import java.io.*;

import java.util.Scanner;

import java.lang.Math;

class Quadratic
{
public static void main(String[]args)
{
System.out.println("Enter the coefficients of the required quadratic equation");

double a,b,c;

Scanner ab=new Scanner(System.in);

a=ab.nextDouble();

b=ab.nextDouble();

c =ab.nextDouble();

double r1,r2,img,real,d,r;

d=b*b-4*a*c;

if(d==0)
{
System.out.println("Roots are real and equal");

r=-b/(2*a);

System.out.println("Roots are"+r);
}
else if(d>0)
{
System.out.println("Roots are real and unequal");

r1=(-b+Math.sqrt(d))/(2*a);

r2=(-b-Math.sqrt(d))/(2*a);

System.out.println("Roots are"+r1+r2);
```

```
}
else if(d<0)
{
real=(-b)/(2*a);
img=(Math.sqrt(-d)/(2*a));
System.out.println("Roots are imaginary");
System.out.println("Roots are"+(real)+"+"+(img)+"i and "+(real)+"-"+(img)+"i");
}
}
}
```

Output:

Enter the coefficients of the required quadratic equation

1 2 1

Roots are real and equal

Roots are-1.0

Enter the coefficients of the required quadratic equation

1 1 1

Roots are imaginary

Roots are-0.5+0.8660254037844386i and -0.5-0.8660254037844386i

Enter the coefficients of the required quadratic equation

1 3 2

Roots are real and unequal

Roots are-1.0-2.0

TO CHECK WHETHER A NUMBER IS PRIME OR NOT.

Program:

```java
import java.util.Scanner;

import java.io.*;

class Prime

{

 public static void main(String[]args)

{

 System.out.println("Enter number ");

 Scanner a =new Scanner(System.in);

 int n=a.nextInt();

 int i,flag=1;

 for(i=2;i<=n/2;i++)

{

 if((n%i)==0)

{

 System.out.println("\nNot a prime number");

flag=0;

 break;

}

}

if(flag==1)

{

 System.out.println("\nPrime number");

}

}

}
```

Output:

Enter number

4

Not a prime number

Enter number

5

Prime number

TO REVERSE A FOUR DIGIT NUMBER.

Program:

```java
import java.io.*;
import java.util.Scanner;
class Reverse
{
public static void main(String[]args)
{
System.out.println("Enter the number whose reverse is to be found:\n");
Scanner a=new Scanner(System.in);
int n=a.nextInt();
int r,rev=0,temp;
temp=n;
do
{
r=n%10;
n=n/10;
rev=10*rev+r;
}
while(n!=0);
System.out.println("The reverse of "+temp+" is "+rev);
}
}
```

Output:

Enter the number whose reverse is to be found:

3453

The reverse of 3453 is 3543

TO PRINT THE FIBONACCI SERIES TILL AN INTEGER N.

Program:

```
import java.util.Scanner;
import java.io.*;
class Fibo
{
public static void main(String []args)
{
System.out.println("Enter the number till which the fibonacci series should execute:");
Scanner ab=new Scanner(System.in);
int n=ab.nextInt();
int a=0,b=1,c=0;
if(n==1)
{
 System.out.println(a);
}
else
{
System.out.println(a);
System.out.println(b);
n=n-2;
while(n>0)
{
c=a+b;
```

```
a=b;

b=c;

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

n--;

}

}

}

}
```

Output:

Enter the number till which the fibonacci series should execute:

6

0

1

1

2

3

5

TO PRINT ALL THE THREE DIGIT ARMSTRONG NUMBERS.

Program:

```
import java.io.*;
class Armstrongupdate
{
 public static void main(String[]args)
{
 int i,r,temp,s=0;
System.out.println("the armstrong numbers  are:");
for(i=100;i<=999;i++)
{ temp=i;
  while(temp>0)
{
 r=temp%10;
 s=s+r*r*r;
 temp=temp/10;


}
if(s==i)
{


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

```
s=0;

}

}

}
```

Output:

The Armstrong numbers are:

153

370

371

407

TO CONVERT THE TEMPERATURE FROM CELSIUS TO KELVIN AND FAHRENHEIT.

```java
import java.io.*;

import java.util.*;


class Convert

{

public static void main(String args[])

{

System.out.println("Enter temperature in celsius ");


Scanner ab=new Scanner(System.in);

double temp=ab.nextDouble();

System.out.println("MENU:\n1 for Celsius to Kelvin\n2 for Celsius to Fahrenheit");

int c=ab.nextInt();

switch(c)

{

case 1:System.out.println("Temperature in Kelvin is "+(temp+273.15)+"K");break;

case 2:System.out.println("Temperature in Fahrenheit is "+(1.8*temp+32)+"F");break;

}

}

}
```

OUTPUT:

Enter temperature in celsius

27

MENU:

1 for Celsius to Kelvin

2 for Celsius to Fahrenheit

1

Temperature in Kelvin is 300.15K

TO CHECK IF THE NUMBER IS EVEN OR ODD AND DISPLAY ITS FACTORIAL.

Program:

```java
import java.io.*;

import java.util.Scanner;

class Fact

{

public static void main(String args[])

{

 int f=1,i;

System.out.println("Enter the number");

Scanner ab=new Scanner(System.in);

int n=ab.nextInt();

if(n%2==0)

{

System.out.println("The number is even");

}

else

{

System.out.println("The number is odd");

}

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

{

f=f*i;

}
```

```java
System.out.println("Factorial is "+f);

}

}
```

OUTPUT:

Enter the number

7

The number is odd.

Factorial is 5040

TO CALCULATE THE SUM OF TWO NUMBERS.

Program:

```java
import java.io.*;

class Start
{
public static void main(String args[])
{
 int x=9,y=6;
 int z;
z=x+y;
System.out.println("Sum is"+z);
}
}
```

OUTPUT:

Sum is 15

TO CALCULATE THE SUM OF FIRST 10 NATURAL NUMBERS.

Program:

```java
import java.io.*;
 class Sum
{
public static void main(String args[])
 {
   int i,s=0;
  for(i=1;i<=10;i++)
 {
s=s+i;
}
 System.out.println("Sum is "+s);
}
}
```

OUTPUT:

Sum is 55

BASIC PROGRAM.

Program:

import java.io.*;

class Welcome

{

 public static void main(String args[])

 {

  System.out.println("Welcome to java programming lab");

 }

}

OUTPUT:

Welcome to java programming lab.

// Command line argument: 1) List the subjects offered to you in sem 3rd using command line arguments. 2) Demonstrate the concept of Arithmetic operators using command line arguments

// Method overloading:WAJP to demonstrate the working of constructor overloading Program and method over loading

// Consider a class figure and overload the function called area to display the area of figures like square triangle rectangle and circle