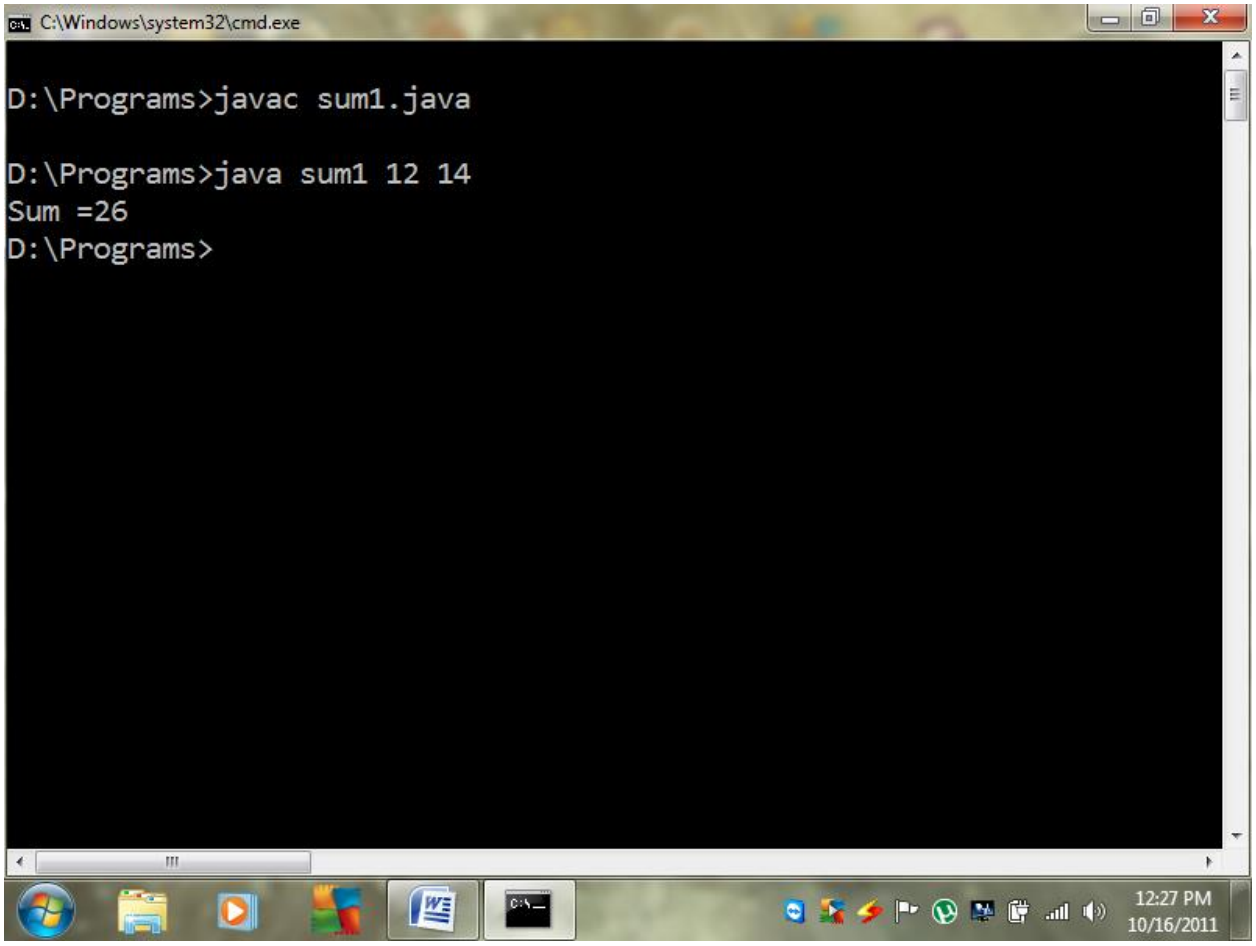
1.

```
/*Program to get sum of two numbers*/
class sum1
{
	public static void main(String arg[])
		{
			int a,b,sum;
			a=Integer.parseInt(arg[0]);
			b=Integer.parseInt(arg[1]);
			sum=a+b;
			System.out.print("Sum ="+sum);
		}
}
```

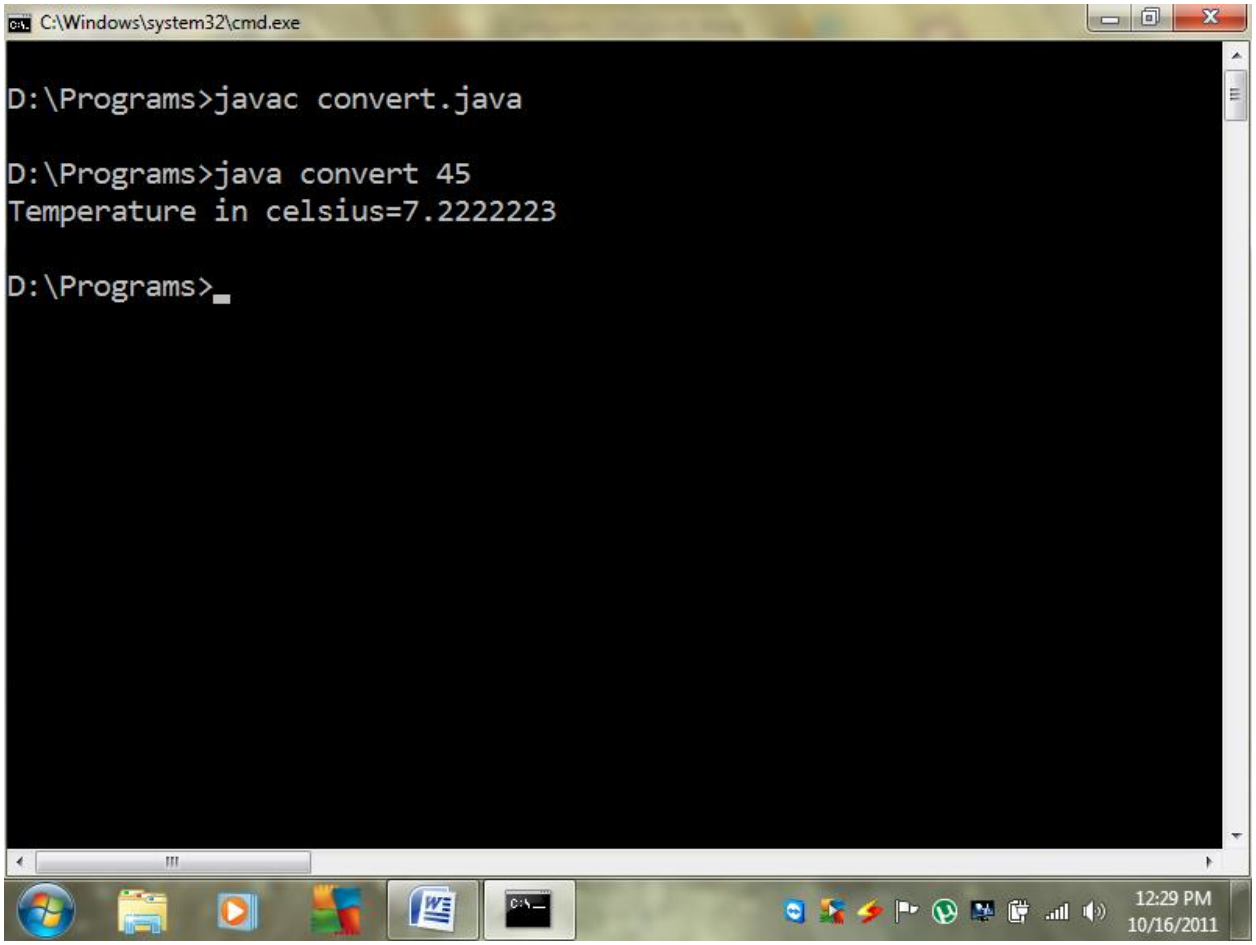
Output:-


C:\Windows\system32\cmd.exe
D:\Programs>javac sum1.java
D:\Programs>java sum1 12 14
Sum =26
D:\Programs>
12:27 PM
10/16/2011

2.

```
/*Program to convert fahernheit  temperature to celsius temperature*/
class convert
{
	public static void main(String arg[])
	{
		float fahrenheit,celsius;
		fahrenheit=Float.parseFloat(arg[0]);
		celsius=(((fahrenheit-32)/9)*5);
		System.out.println("Temperature in celsius="+celsius);
	}
}
```

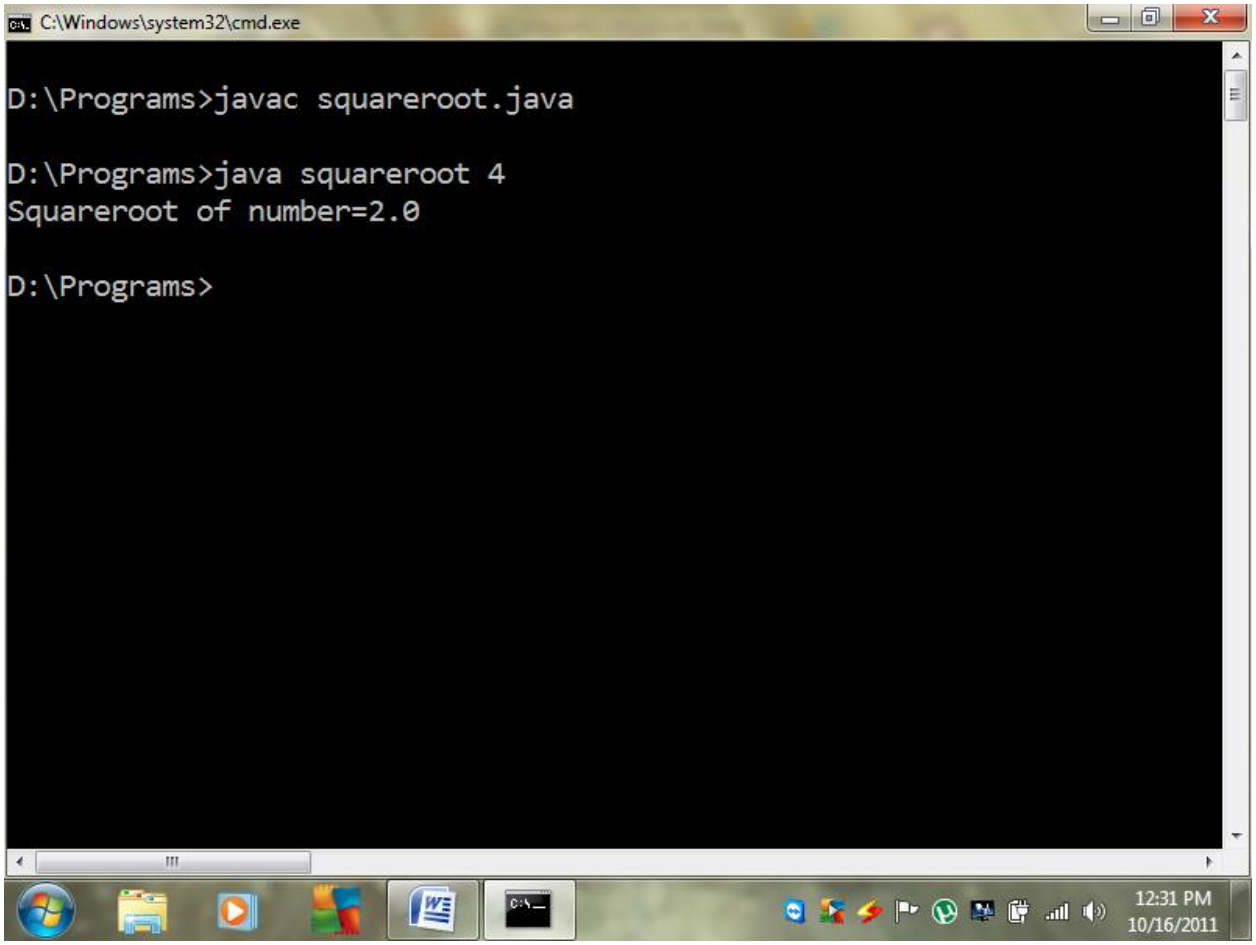
Output:-


C:\Windows\system32\cmd.exe
D:\Programs>javac convert.java
D:\Programs>java convert 45
Temperature in celsius=7.2222223
D:\Programs>
12:29 PM
10/16/2011

3.

```
/*Program to find square root of a number*/
import java.lang.Math;
class squareroot
{
	public static void main(String arg[])
	{
		double squareroot,number;
		number=Float.parseFloat(arg[0]);
		squareroot=Math.sqrt(number);
		System.out.println("Squareroot of number="+squareroot);
	}
}
```

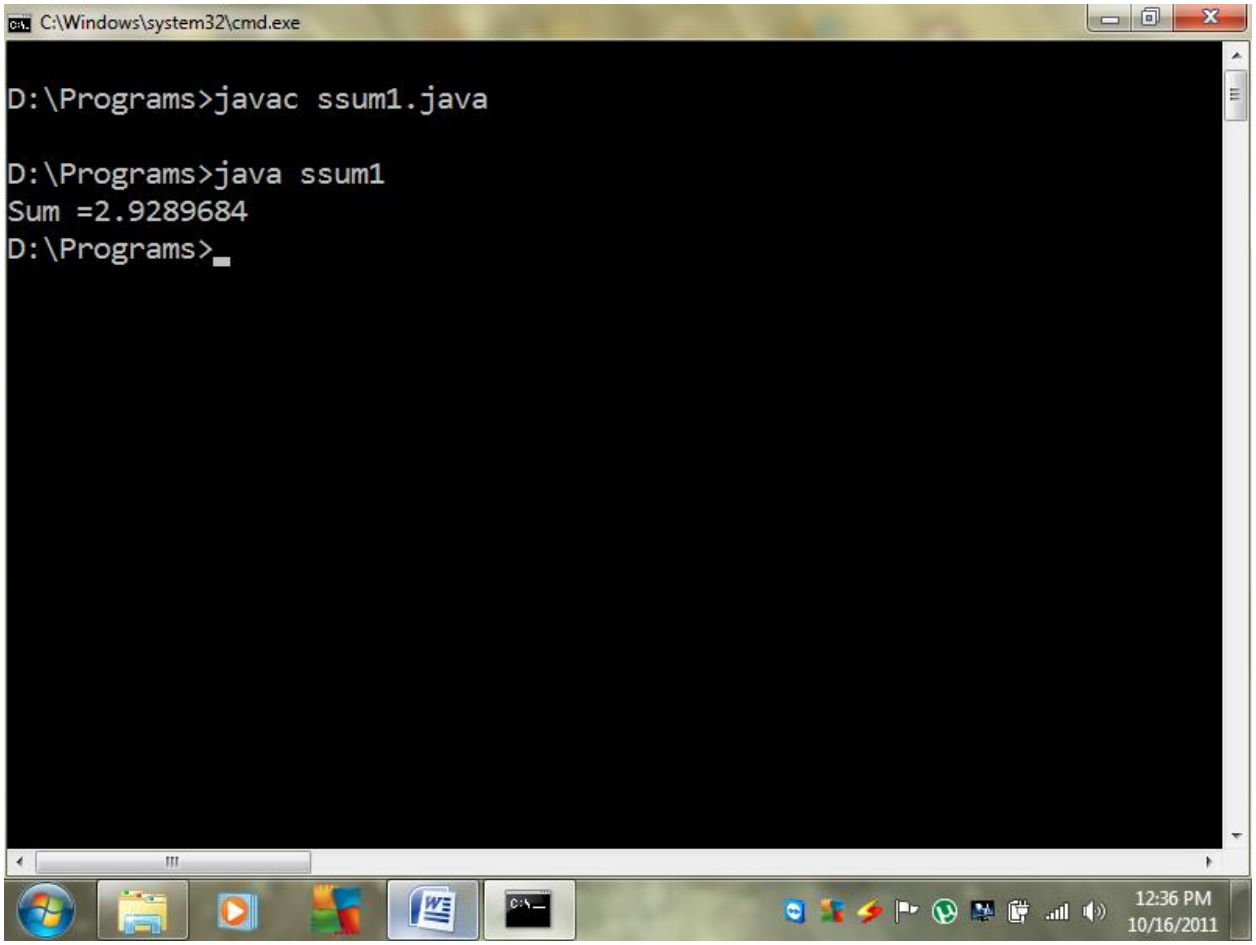
Output:-


C:\Windows\system32\cmd.exe
D:\Programs>javac squareroot.java
D:\Programs>java squareroot 4
Squareroot of number=2.0
D:\Programs>
12:31 PM
10/16/2011

4.

```
/*Program to get sum of series numbers 1+1/2+....+1/10*/
class ssum1
{
	public static void main(String arg[])
		{
			float sum=0,temp;
			for(float i=1;i<=10;i++)
			{
				temp=1/i;
				sum=sum+temp;



			}
			System.out.print("Sum ="+sum);
		}

}
```

Output:-

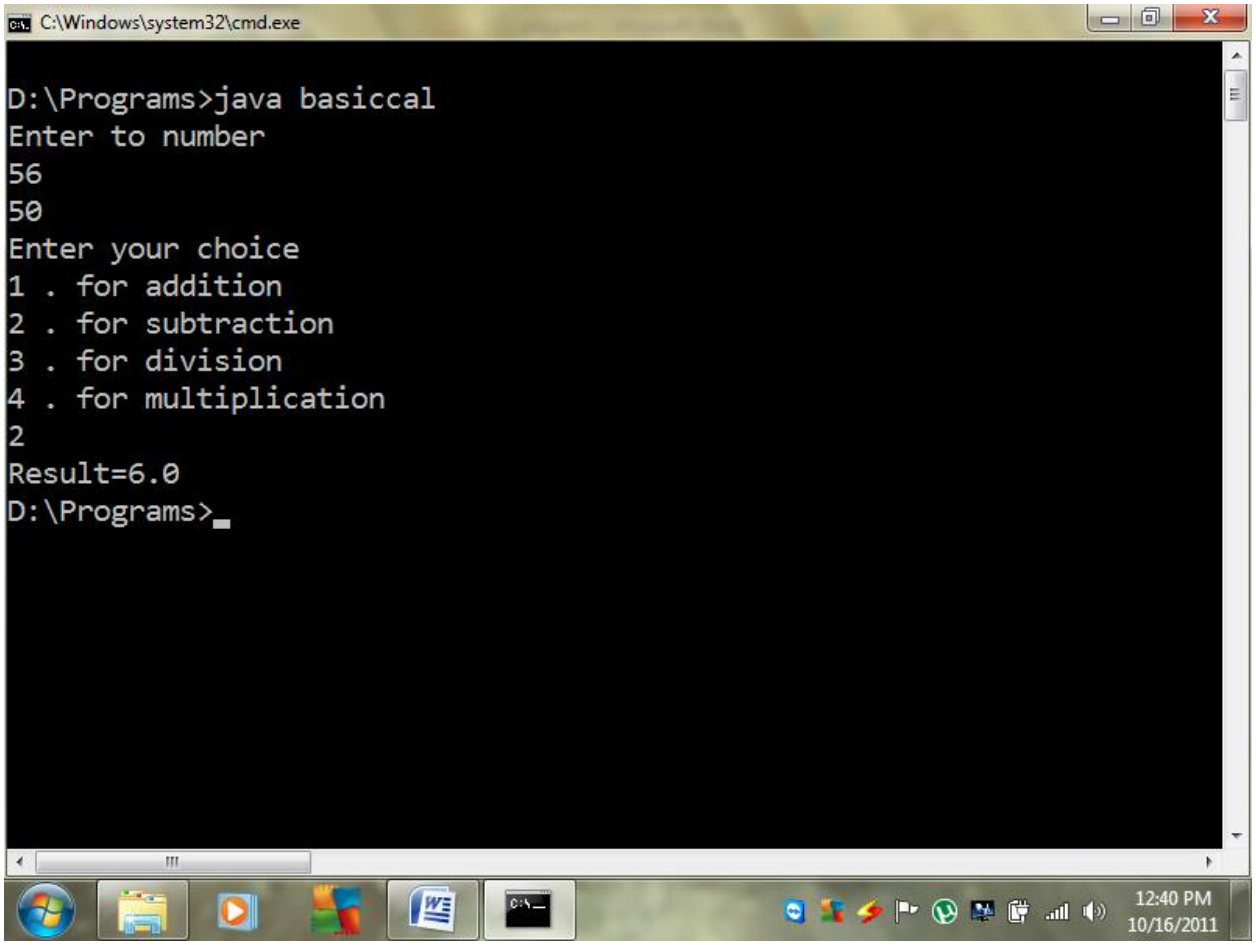

C:\Windows\system32\cmd.exe
D:\Programs>javac ssum1.java
D:\Programs>java ssum1
Sum =2.9289684
D:\Programs>
12:36 PM
10/16/2011

5.

```
/*Program of that implements the basic functionality of a calculator*/
import java.io.DataInputStream;
class basiccal
{
	public static void main(String arg[])throws Exception
	{
		int opr;
		float a,b,result=0,right=1;
		DataInputStream in=new DataInputStream(System.in);
		System.out.println("Enter to number");
		a=Float.parseFloat(in.readLine());
		b=Float.parseFloat(in.readLine());
		System.out.println("Enter your choice");
		System.out.println("1 . for addition");
		System.out.println("2 . for subtraction");
		System.out.println("3 . for division");
		System.out.println("4 . for multiplication");
		opr=Integer.parseInt(in.readLine());
		switch(opr)
		{
			case 1:
				result=a+b;
				break;
			case 2:
```

```
                result=a-b;
                break;
            case 3:
                result=a/b;
                break;
            case 4:
                result=a*b;
                break;
            default:
                System.out.println("No this type of selection available");
                right=0;
                break;
        }
        if(right==1);
            System.out.print("Result="+result);
        }
}
```

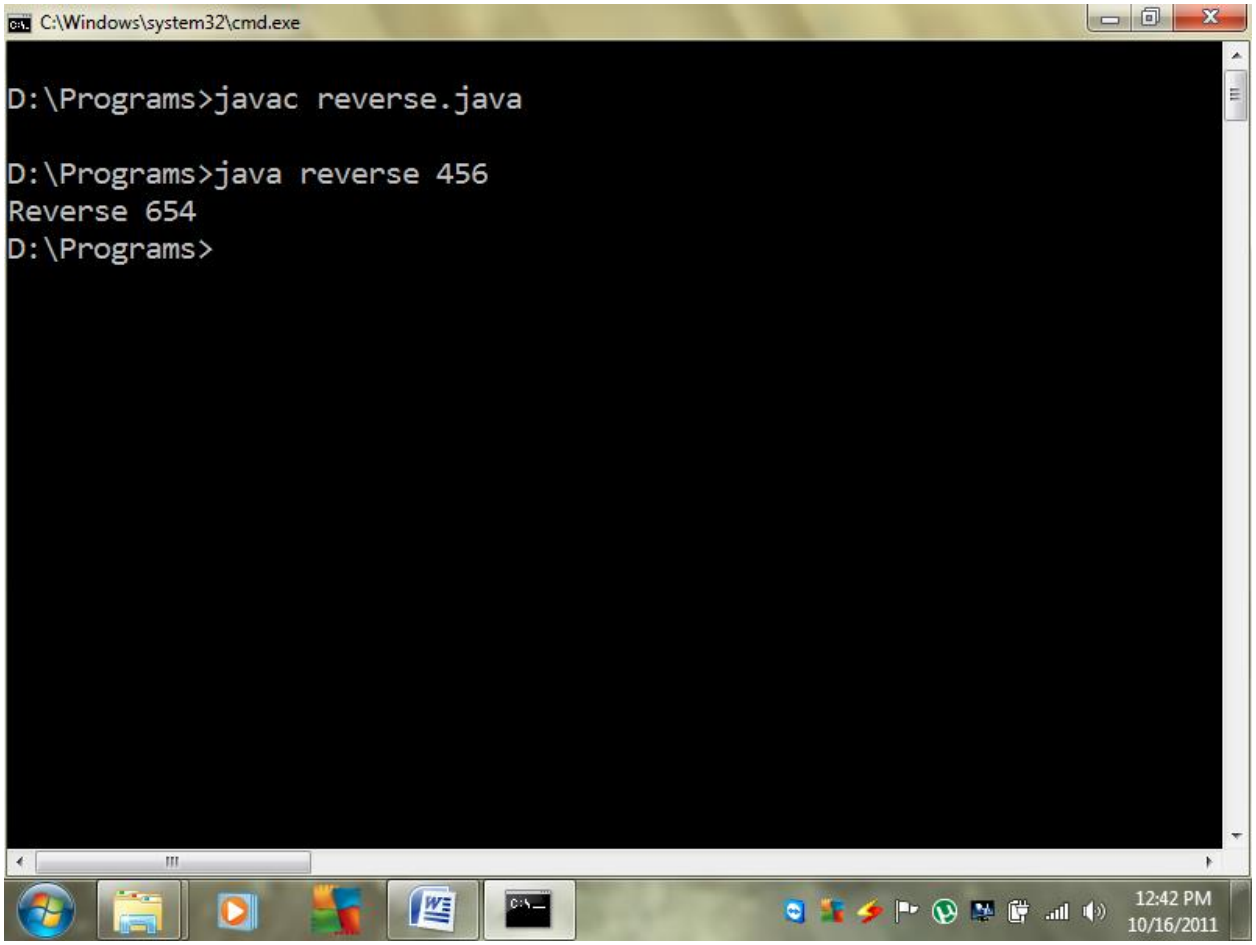
Output:-


C:\Windows\system32\cmd.exe
D:\Programs>java basiccal
Enter to number
56
50
Enter your choice
1 . for addition
2 . for subtraction
3 . for division
4 . for multiplication
2
Result=6.0
D:\Programs>
12:40 PM
10/16/2011

6.

```
/*Program to find that the reverse of a number */
class reverse
{
	public static void main(String arg[])
		{
			int num,temp,rem,q=0,rev=0;
			num=Integer.parseInt(arg[0]);
			temp=num;
			while(temp!=0)
			{
				rem=temp%10;
				temp=temp/10;
				rev=rev*10+rem;
			}
				System.out.print("Reverse "+rev);
		}
}
```

Output:-


C:\Windows\system32\cmd.exe
D:\Programs>javac reverse.java
D:\Programs>java reverse 456
Reverse 654
D:\Programs>
12:42 PM
10/16/2011

7.

/*Program to print the following number series

1

1 1

1 0 1

1 0 0 1

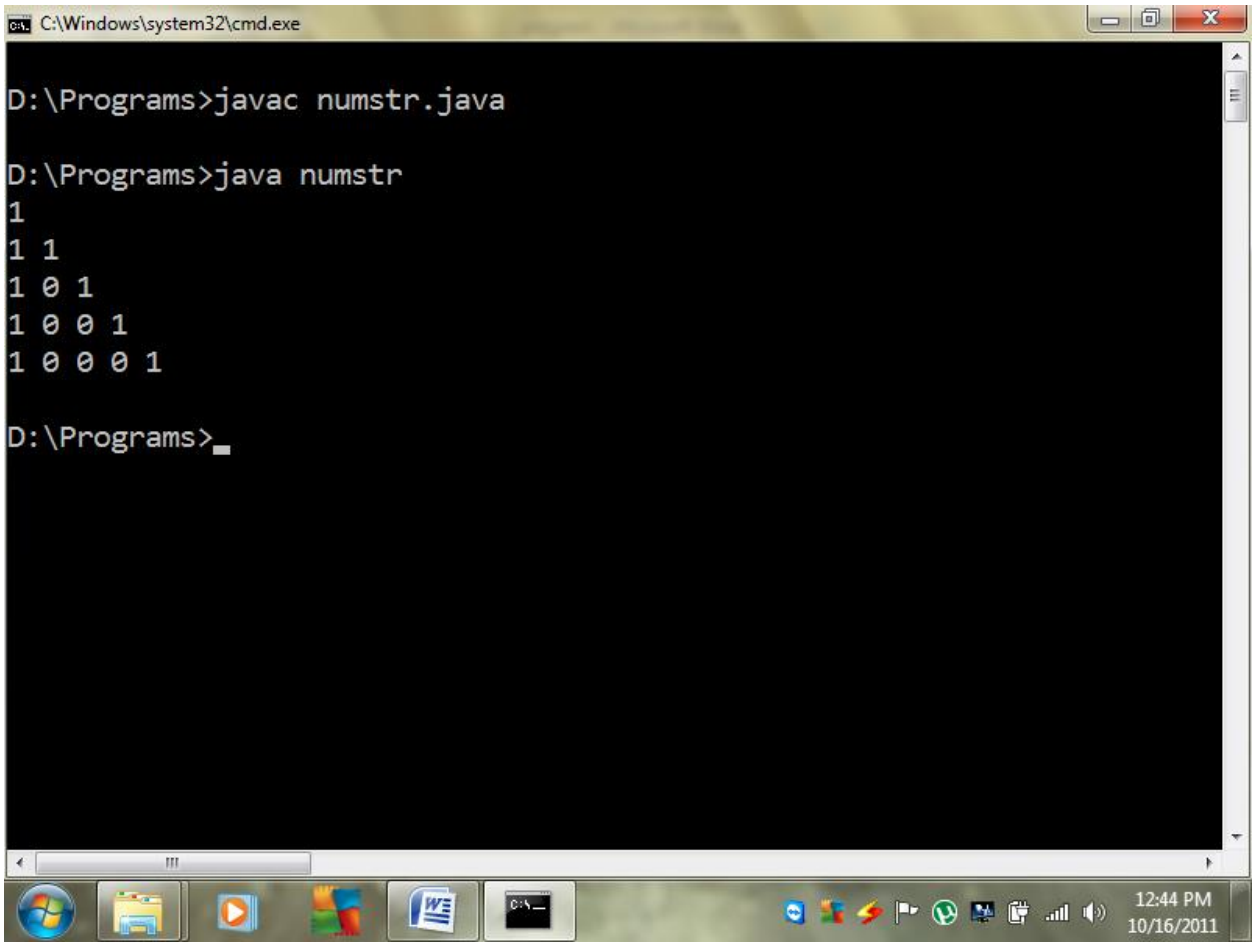
1 0 0 0 1

*/

```
class numstr
	{
		public static void main(String arg[])
		{
			int i,j;
			for(i=1;i<=5;i++)
			{
				for(j=1;j<=i;j++)
				{
					if((j==1)||(j==i))
						System.out.print(1+" ");
					if((j!=1)&&(j!=i))
						System.out.print(0+" ");
				}
				System.out.println();
			}
```

```
        }
}
```

Output:-

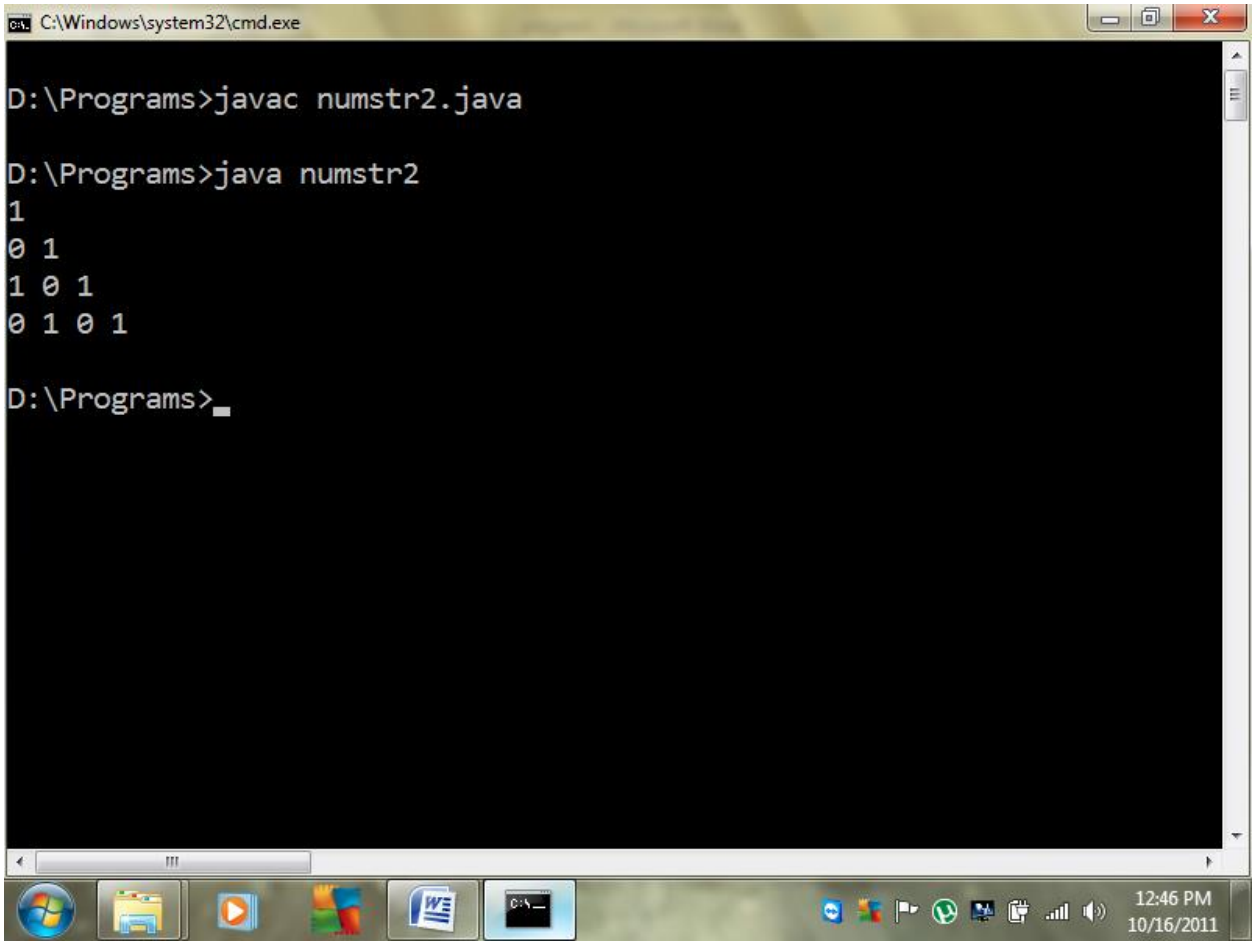

C:\Windows\system32\cmd.exe
D:\Programs>javac numstr.java
D:\Programs>java numstr
1
1 1
1 0 1
1 0 0 1
1 0 0 0 1
D:\Programs>
12:44 PM
10/16/2011

8.

```
/*Program to print the following number series
1
0 1
1 0 1
0 1 01
*/
class numstr2
	{
		public static void main(String arg[])
		{
			int i,j;
			for(i=1;i<=4;i++)
			{
				for(j=1;j<=i;j++)
				{

					if(i%2!=0)
						{
							if((j==1)||(j==i))
								System.out.print(1+" ");
							else
								System.out.print(0+" ");
						}
					if(i%2==0)
```

```
                                        {
                                                if(j%2==0)
                                                        System.out.print(1+" ");
                                                else
                                                        System.out.print(0+" ");
                                        }
                                }
                                System.out.println();
                        }


                }
}
```

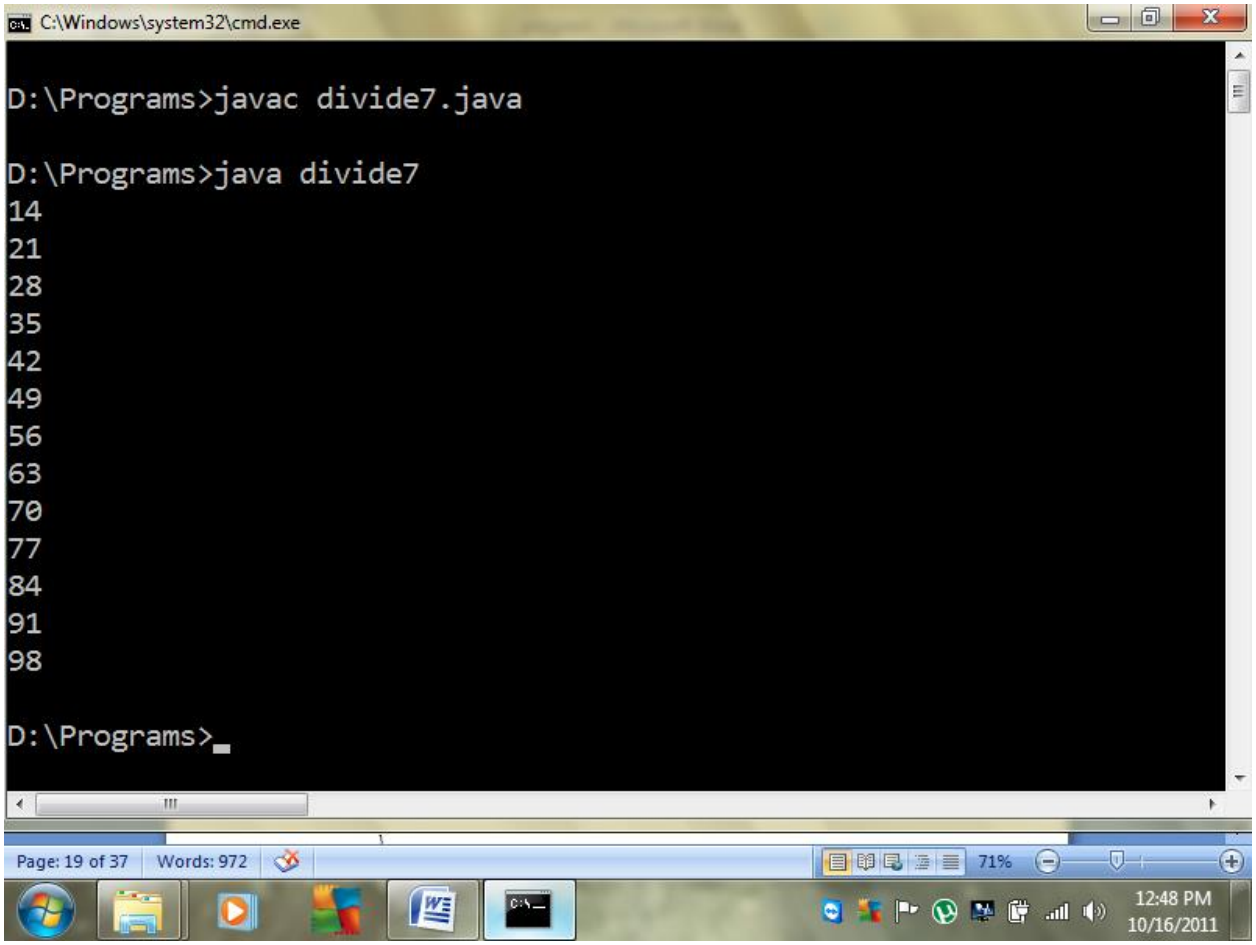
Output:-


C:\Windows\system32\cmd.exe
D:\Programs>javac numstr2.java
D:\Programs>java numstr2
1
0 1
1 0 1
0 1 0 1
D:\Programs>
12:46 PM
10/16/2011

9.

```
/*Program to print numbers divisible by 7 in between 10 and 100 */
class divide7
{
	public static void main(String arg[])
	{
		int i,rem;
		for(i=10;i<=100;i++)
		{
			rem=i%7;
			if(rem==0)
					System.out.println(i);
			else
					continue;
		}
	}
}
```

Output:-

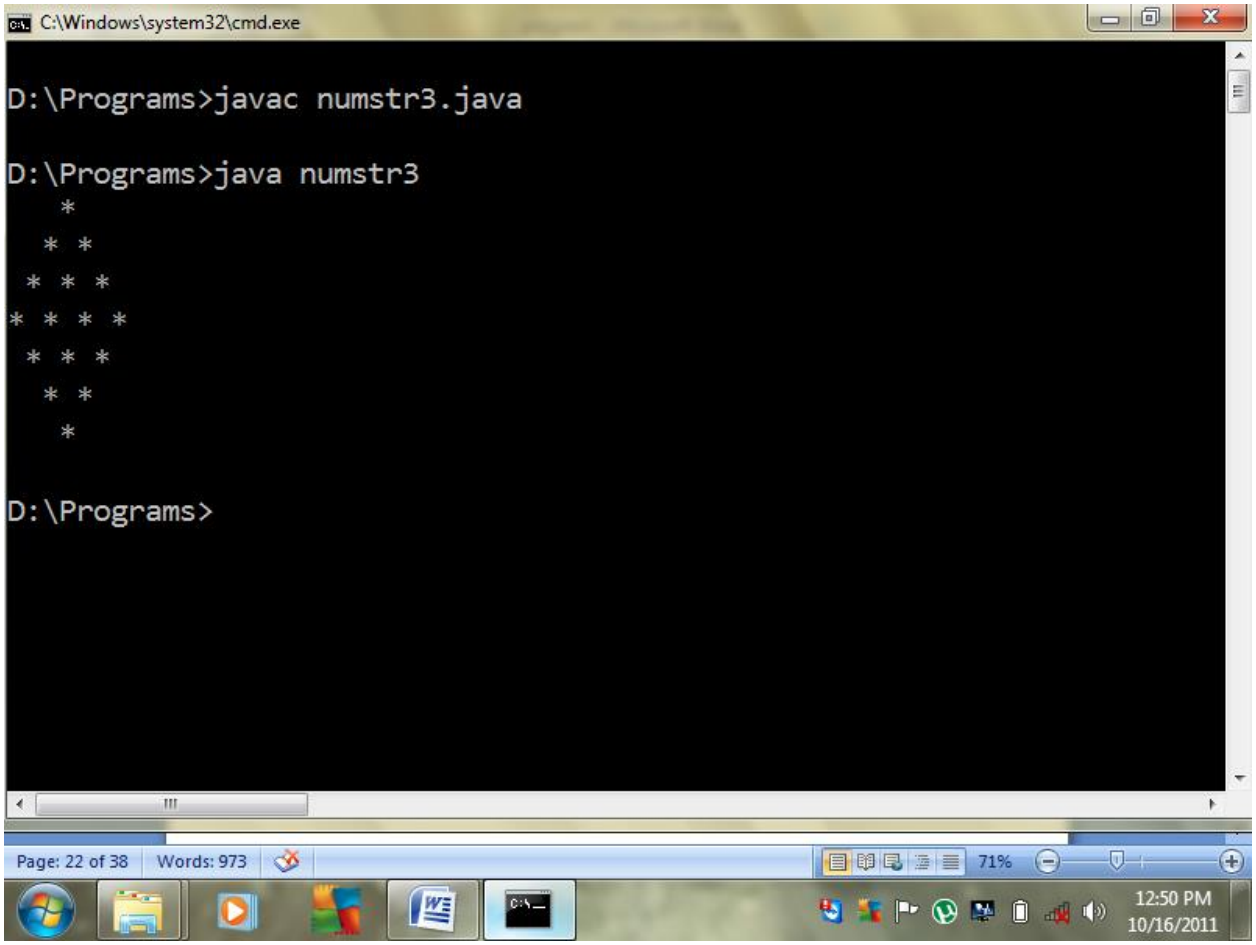

C:\Windows\system32\cmd.exe
D:\Programs>javac divide7.java
D:\Programs>java divide7
14
21
28
35
42
49
56
63
70
77
84
91
98
D:\Programs>
Page: 19 of 37
Words: 972
71%
12:48 PM
10/16/2011

10.

```
/*Program to print following pattern
          *
          * *
        * * * *
         * * *
          * *
           *
*/
class numstr3
{
        public static void main(String arg[])
        {
                int i,j,k;
                for(i=1;i<=4;i++)
                 {
                        for(j=4;j>i;j--)
                                System.out.print(" ");
                         for(k=1;k<=i;k++)
                                System.out.print("* ");
                        System.out.println();
                }
                for(i=3;i>=1;i--)
                {
                        for(j=i;j<4;j++)
```

```
                    System.out.print(" ");
                for(k=1;k<=i;k++)
                    System.out.print("* ");
                System.out.println();
            }
        }
}
```

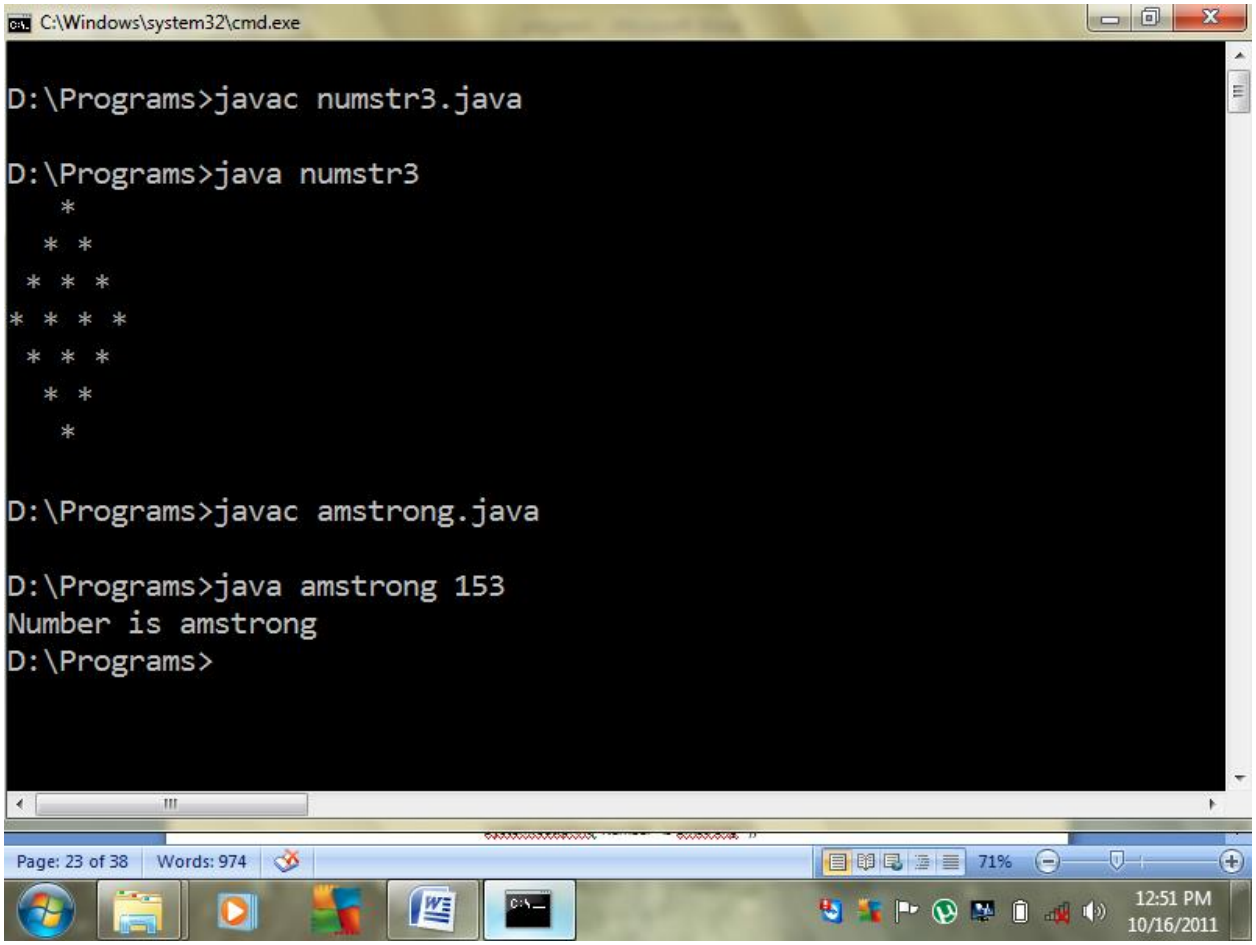
Output:-



11.

```
/*Program to check a number is amstrong or not*/
class amstrong
{
	public static void main(String arg[])
		{
			int num,temp,rem,q=0 ;
			num=Integer.parseInt(arg[0]);
			temp=num;
			while(temp!=0)
			{
				rem=temp%10;
				q=(q+(rem*rem*rem));
				temp=temp/10;
			}
			if(q==num)
				System.out.print("Number is amstrong ");
			else
				System.out.print("Number is not amstrong");
		}
}
```

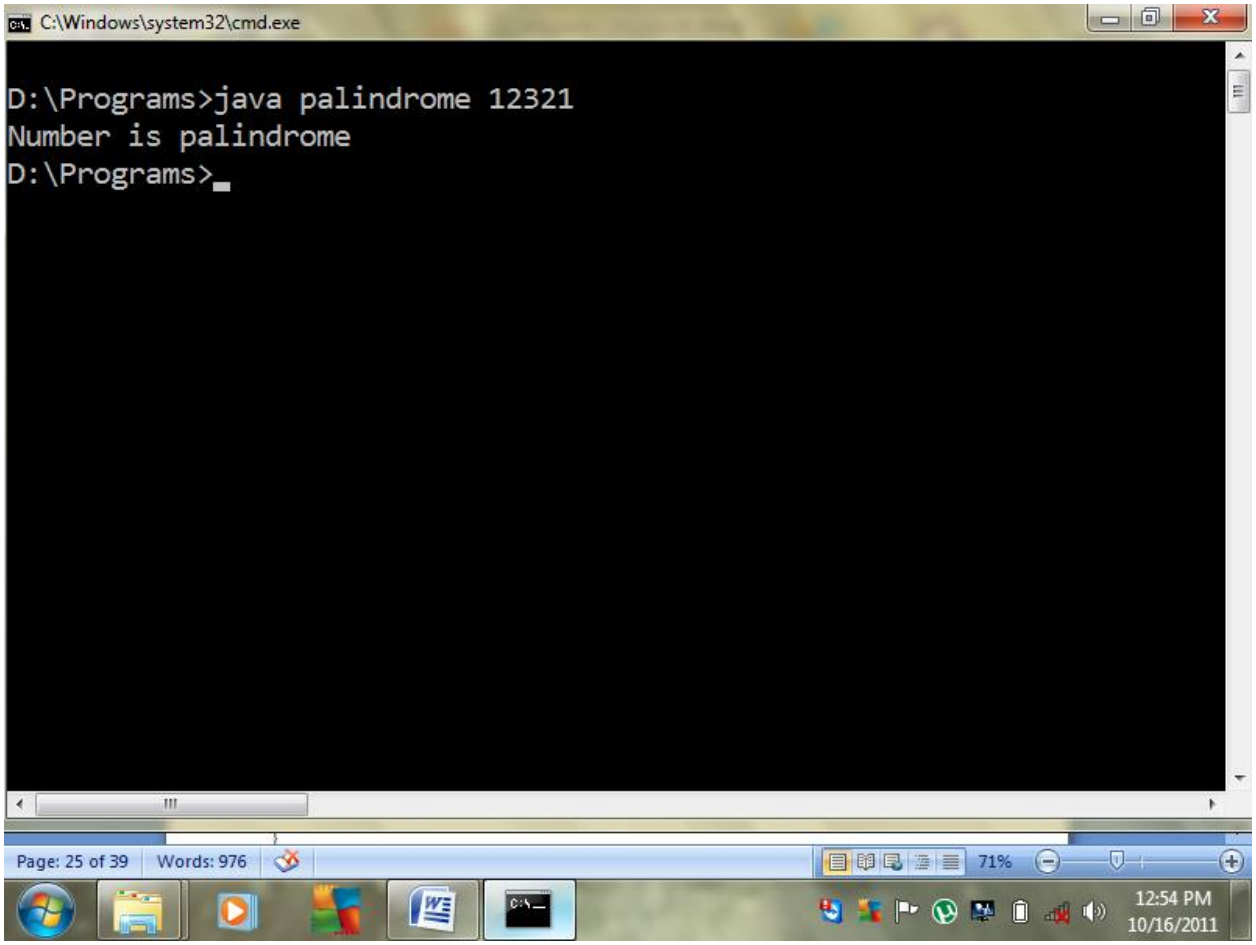
Output:-


C:\Windows\system32\cmd.exe
D:\Programs>javac numstr3.java
D:\Programs>java numstr3
*
* *
* * *
* * * *
* * *
* *
*
D:\Programs>javac amstrong.java
D:\Programs>java amstrong 153
Number is amstrong
D:\Programs>
Page: 23 of 38
Words: 974
71%
12:51 PM
10/16/2011

12.

```
/*Program to check whether a number is palindrome or not*/
class palindrome
{
	public static void main(String arg[])
	{
		int num,temp,rev=0,rem;
		num=Integer.parseInt(arg[0]);
		temp=num;
		while(temp!=0)
			{
				rem=temp%10;
				rev=rev*10;
				rev=rev+rem;
				temp=temp/10;
			}
	if(rev==num)
			System.out.print("Number is palindrome");
	else
			System.out.print("Number is not palindrome");
	}
}
```

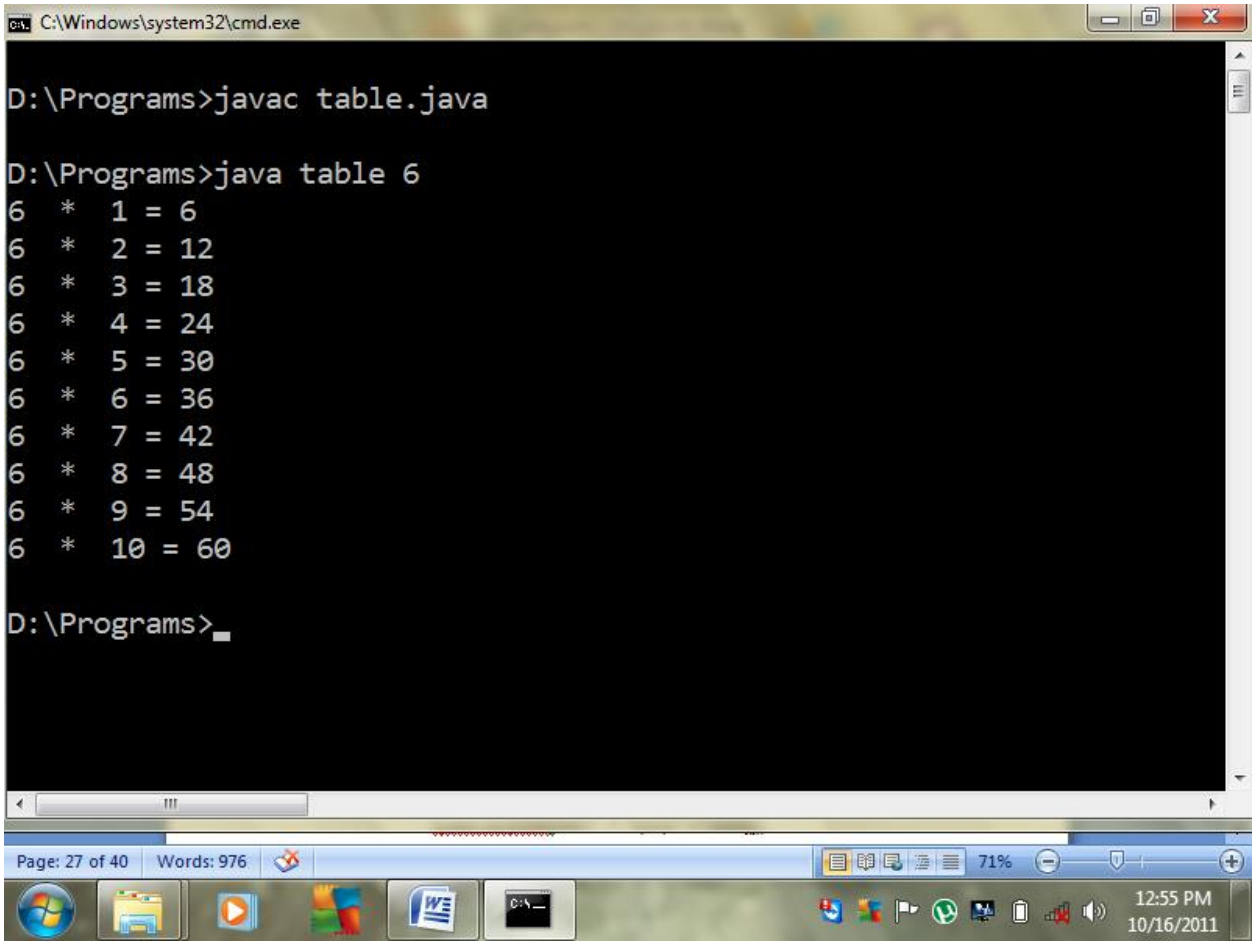
Output:-


C:\Windows\system32\cmd.exe
D:\Programs>java palindrome 12321
Number is palindrome
D:\Programs>
Page: 25 of 39
Words: 976
71%
12:54 PM
10/16/2011

14.

```
/*Program to print table of a number from 1 to 10 using array*/
class table
{
	public static void main(String arg[])
	{
		int i,num,temp=0;
		int table[]=new int[10];
		num=Integer.parseInt(arg[0]);
		for(i=1;i<=10;i++)
		{
			temp=i*num;
			table[i-1]=temp;
		}
		for(i=0;i<10;i++)
		{

			System.out.println(num+"  *  "+(i+1)+" = "+table[i]);
		}

	}
}
```

Output:-

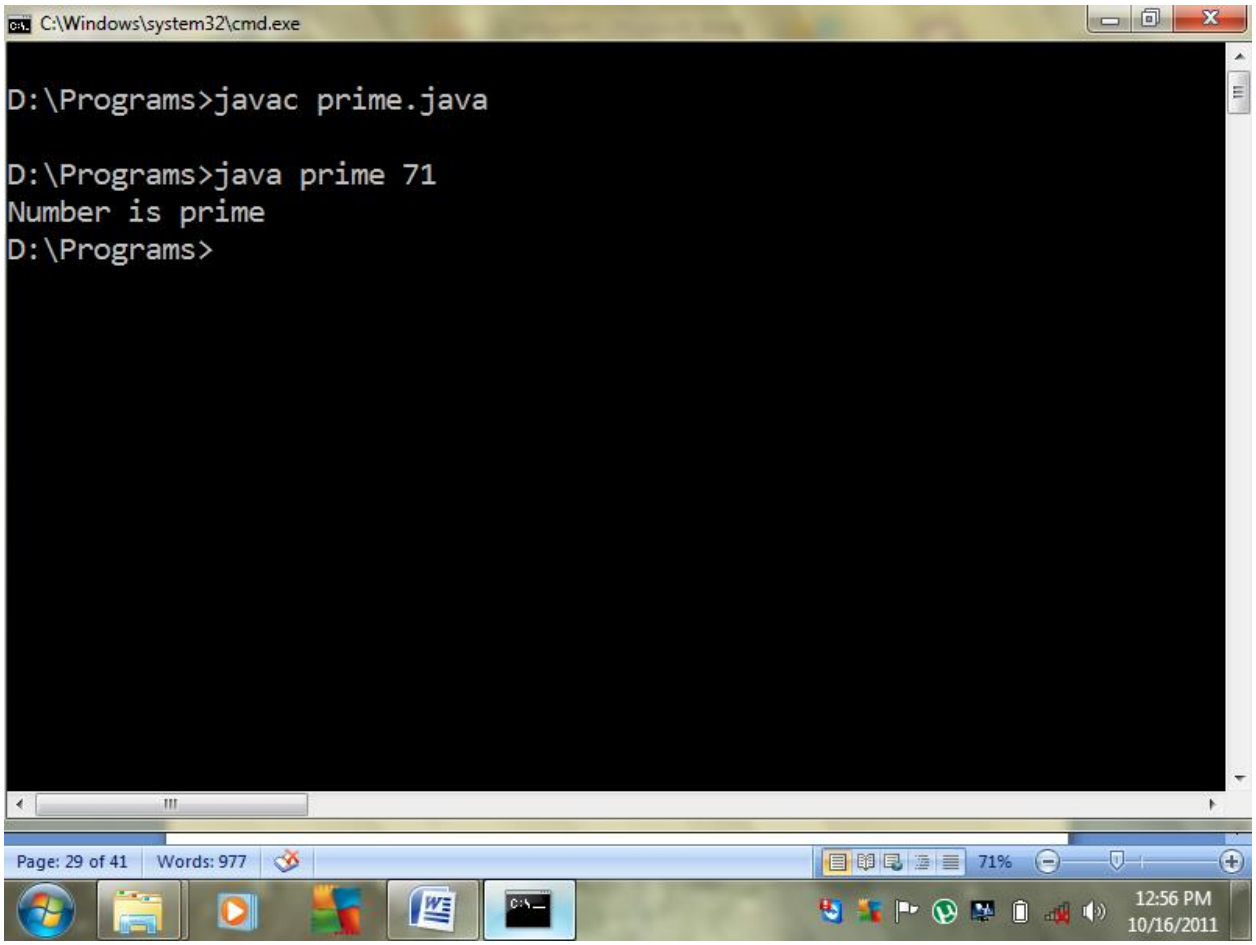

C:\Windows\system32\cmd.exe
D:\Programs>javac table.java
D:\Programs>java table 6
6 * 1 = 6
6 * 2 = 12
6 * 3 = 18
6 * 4 = 24
6 * 5 = 30
6 * 6 = 36
6 * 7 = 42
6 * 8 = 48
6 * 9 = 54
6 * 10 = 60
D:\Programs>
Page: 27 of 40
Words: 976
71%
12:55 PM
10/16/2011

15.

```
/*Program to check that a number is prime or not*/
class prime
{
		public static void main(String arg[])
		{
			int num,i,rem,result=0;
			num=Integer.parseInt(arg[0]);

			for(i=2;i!=num;i++)
			{
				rem=num%i;
				if(rem==0)
				{
					result=1;
					break;
				}
				else
					continue;
			}
		if(result==1)
				System.out.print("Number is not prime");
		else
				System.out.print("Number is prime");
		}
```

}

Output:-

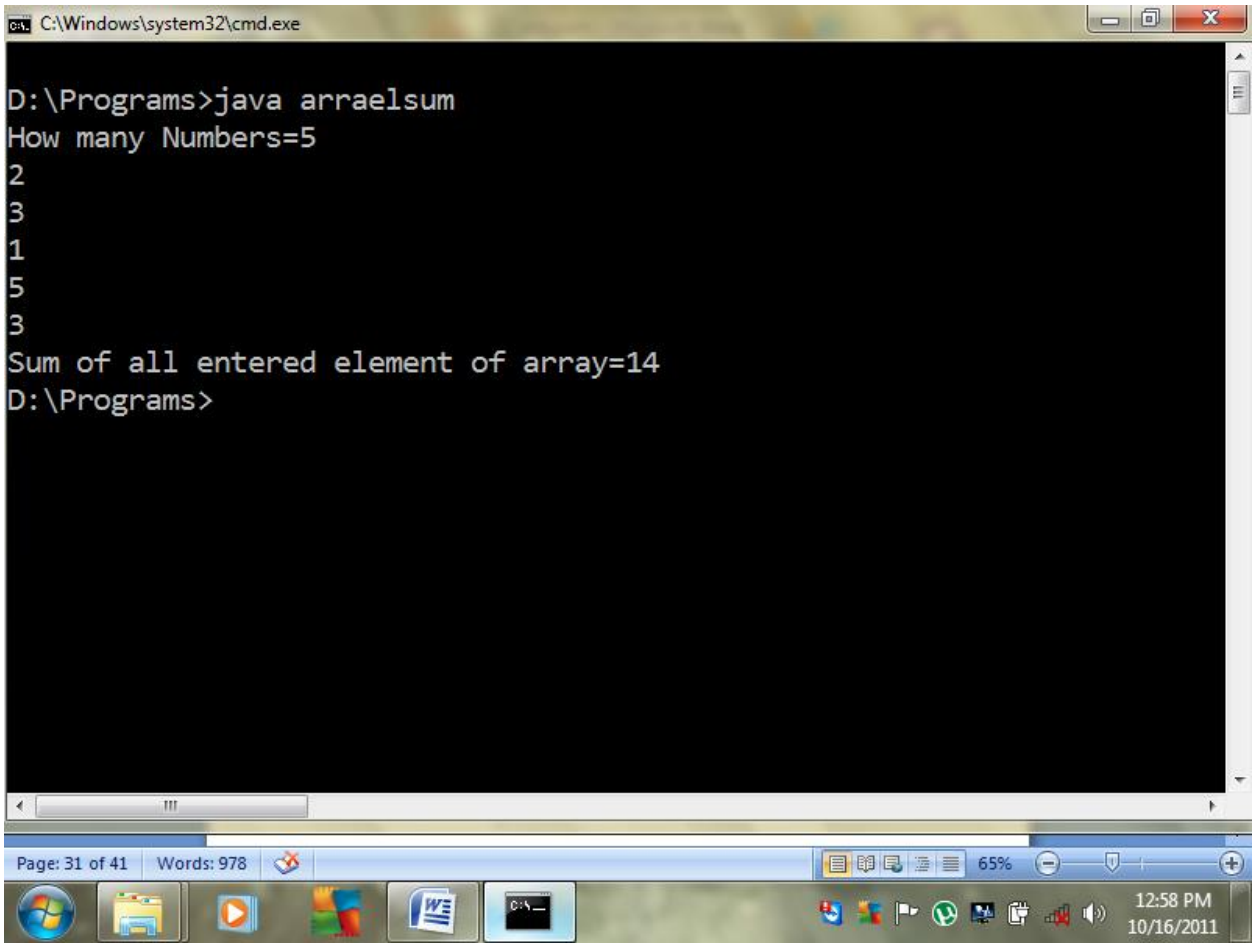

C:\Windows\system32\cmd.exe
D:\Programs>javac prime.java
D:\Programs>java prime 71
Number is prime
D:\Programs>
Page: 29 of 41
Words: 977
71%
12:56 PM
10/16/2011

16.

```
/*Program to sum of the elements of an array*/
import java.io.DataInputStream;
class arraelsum
{
	public static void main(String arg[])throws Exception
		{
			int n,i,j,sum=0;
			int number[];
			DataInputStream in=new DataInputStream(System.in);
			System.out.print("How many Numbers=");

			n=Integer.parseInt(in.readLine());

			number=new int[n];

			for(i=0;i<n;i++)
				{
					number[i]=Integer.parseInt(in.readLine());
					sum=sum+number[i];
				}


			System.out.print("Sum of all entered element of array="+sum);
```

```
        }
}
```

Output:-

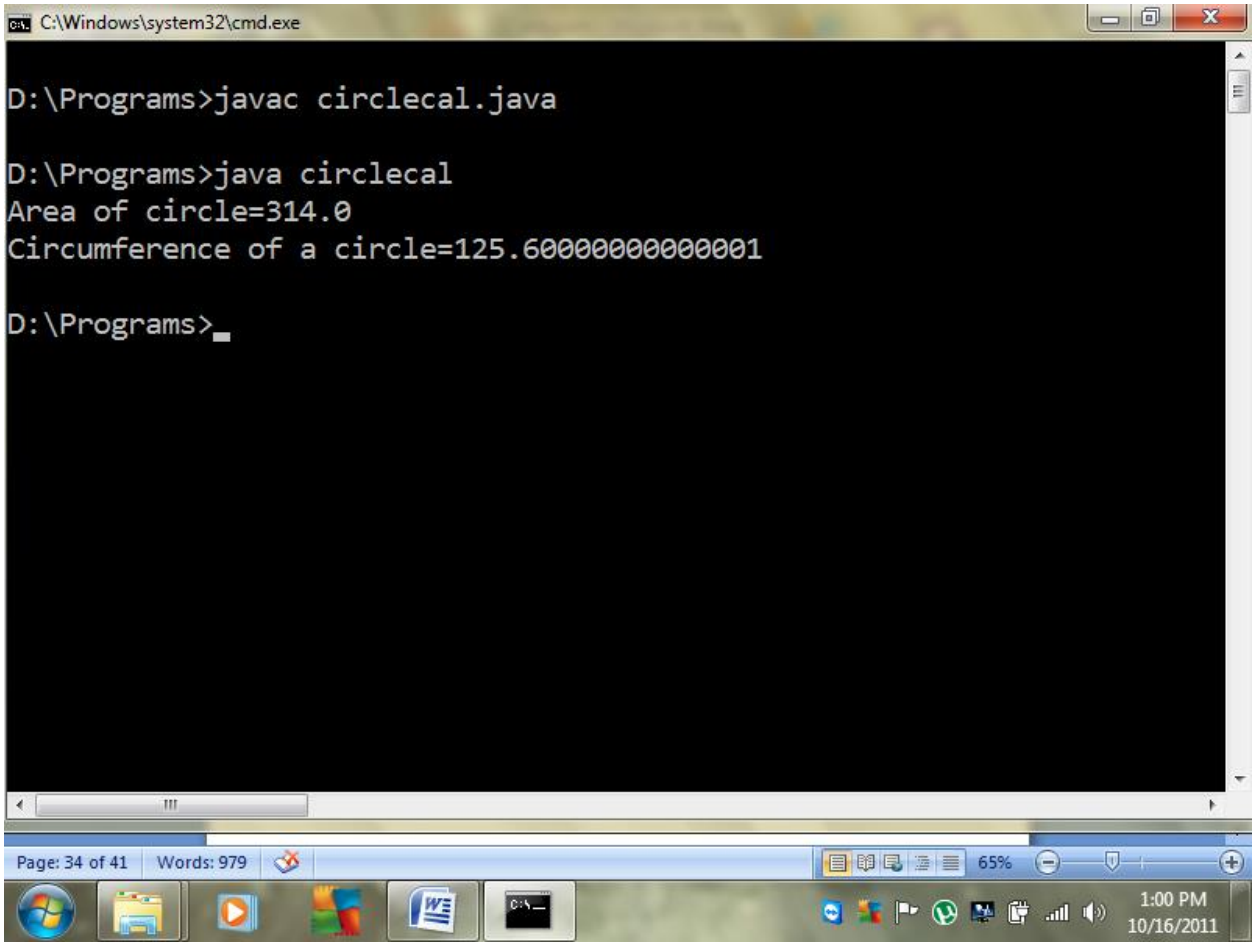

C:\Windows\system32\cmd.exe
D:\Programs>java arraelsum
How many Numbers=5
2
3
1
5
3
Sum of all entered element of array=14
D:\Programs>
Page: 31 of 41
Words: 978
65%
12:58 PM
10/16/2011

18.

```
/*Program to calculate area and circumference of circle */
class areaofcircle
{
	double radius;
	areaofcircle(double r)
	{
			radius=r;
	}
	void area()
	{
		double ar;
		ar=3.14*radius*radius;
		System.out.println("Area of circle="+ar);
	}
}
class circumofcircle
{
	double radius;
	circumofcircle(float  r)
	{
		radius=r;
	}
	void circumference()
	{
```

```
                double circum;
                circum=2*3.14*radius;
                System.out.println("Circumference of a circle="+circum);
        }
}
class circlecal
{
        public static void main(String arg[])
        {
                areaofcircle obj =new areaofcircle(10);
                obj.area();
                circumofcircle obj1=new circumofcircle(20);
                obj1.circumference();
        }
}
```

Output:-

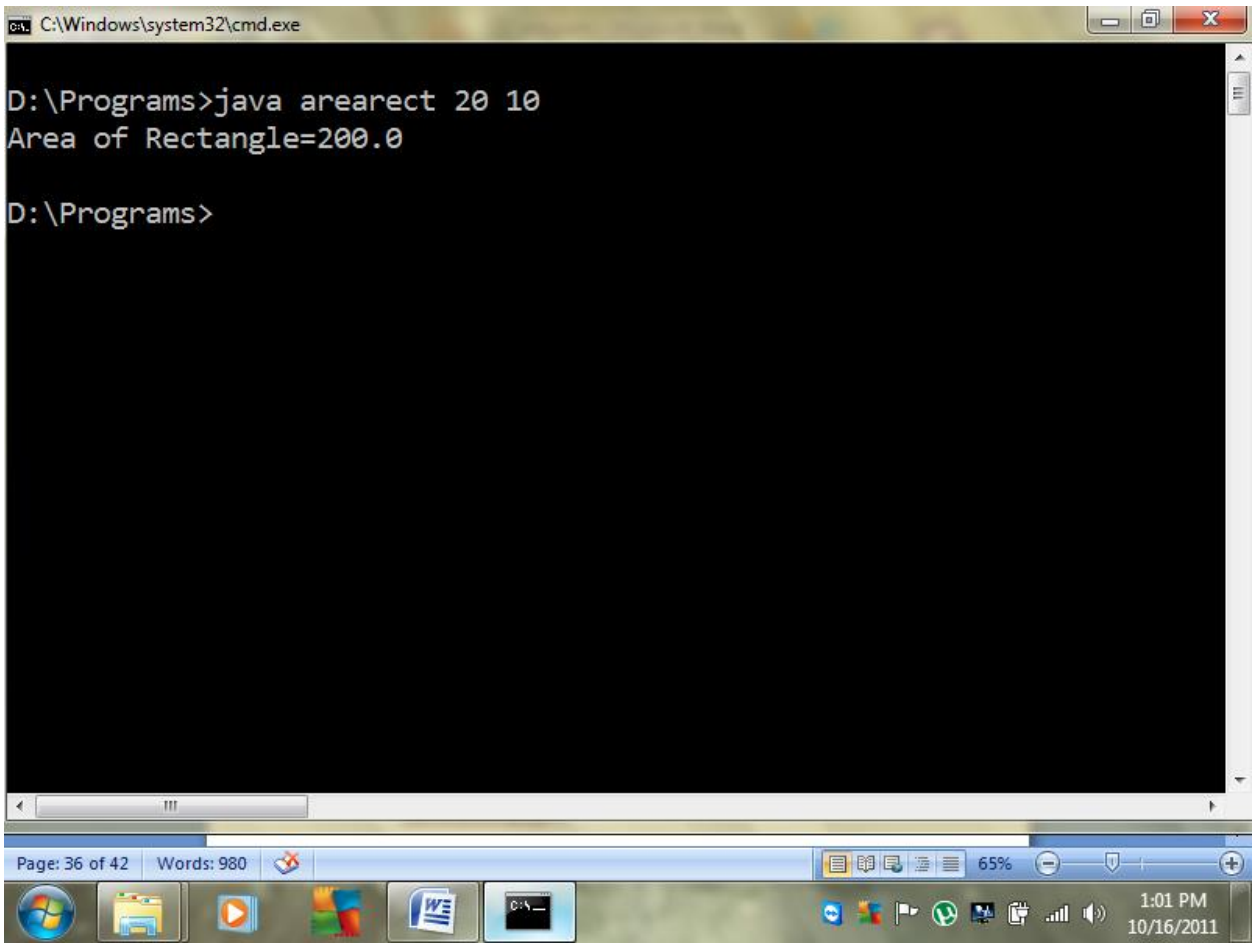

C:\Windows\system32\cmd.exe
D:\Programs>javac circlecal.java
D:\Programs>java circlecal
Area of circle=314.0
Circumference of a circle=125.60000000000001
D:\Programs>
Page: 34 of 41
Words: 979
65%
1:00 PM
10/16/2011

19.

```
/*Program to calculate area of rectangle*/
class areaofrect
{
	float length,width;
	areaofrect(float l,float w)
	{
		length=l;
		width=w;
	}
	void area()
	{
		float ar;
		ar=length*width;
		System.out.println("Area of Rectangle="+ar);
	}
}
class arearect
{
	public static void main(String arg[])
	{
		float len,wid;
		len=Float.parseFloat(arg[0]);
		wid=Float.parseFloat(arg[1]);
		areaofrect obj =new areaofrect(len,wid);
```

```
            obj.area();
        }
}
```

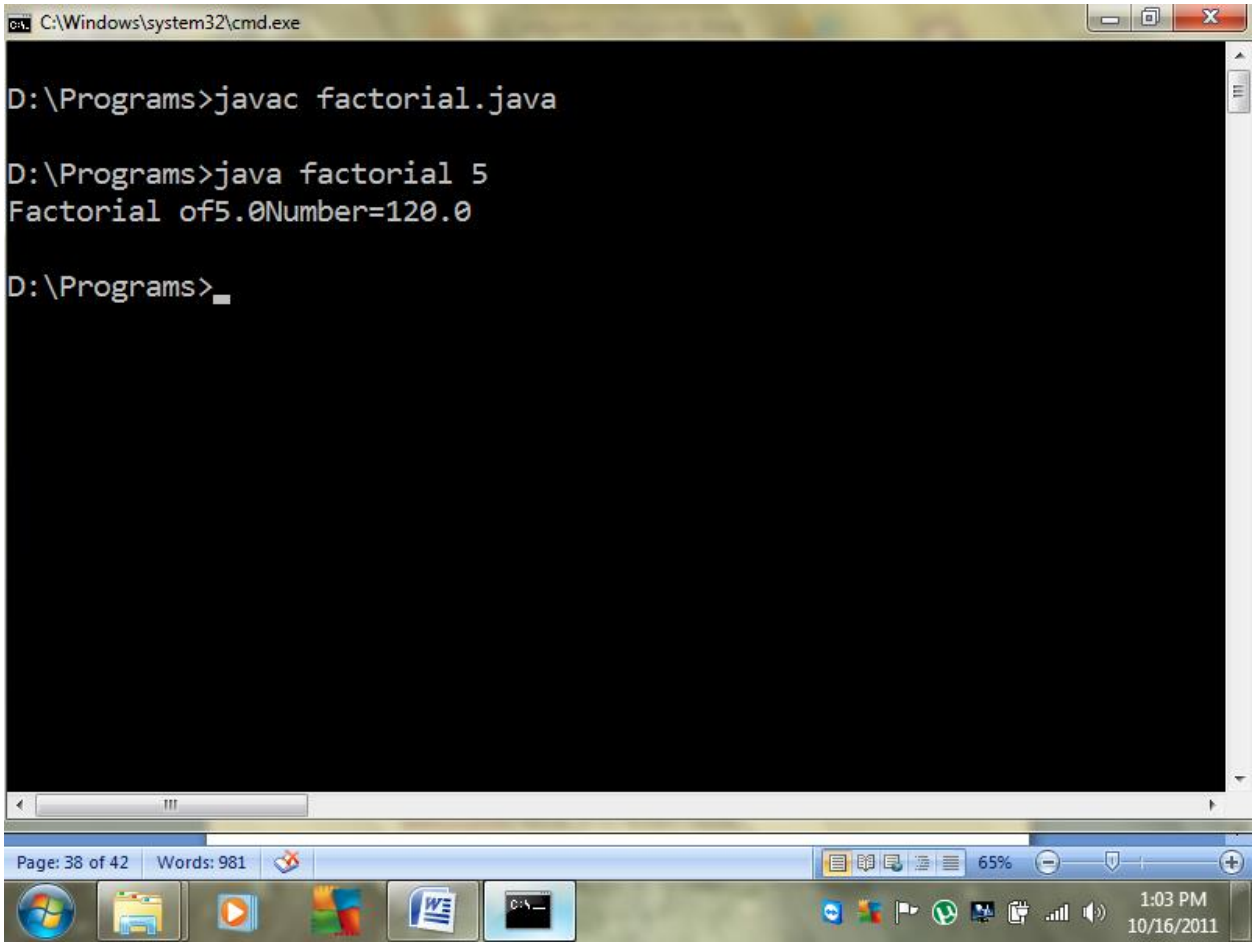
Output:-



21.

```
/*Program to find the factorial of a number using recursion */
class calculate
{
	float calfacto(float number)
	{
		if(number==0)
			return 1;
		else
			return (number*calfacto(number-1));
	}
}
class factorial
{
	public static void main(String arg[])
	{
		float n,result;
		n=Float.parseFloat(arg[0]);
		calculate obj=new calculate();
		result=obj.calfacto(n);
		System.out.println("Factorial of"+n+"Number="+result);
	}
}
```

Output:-

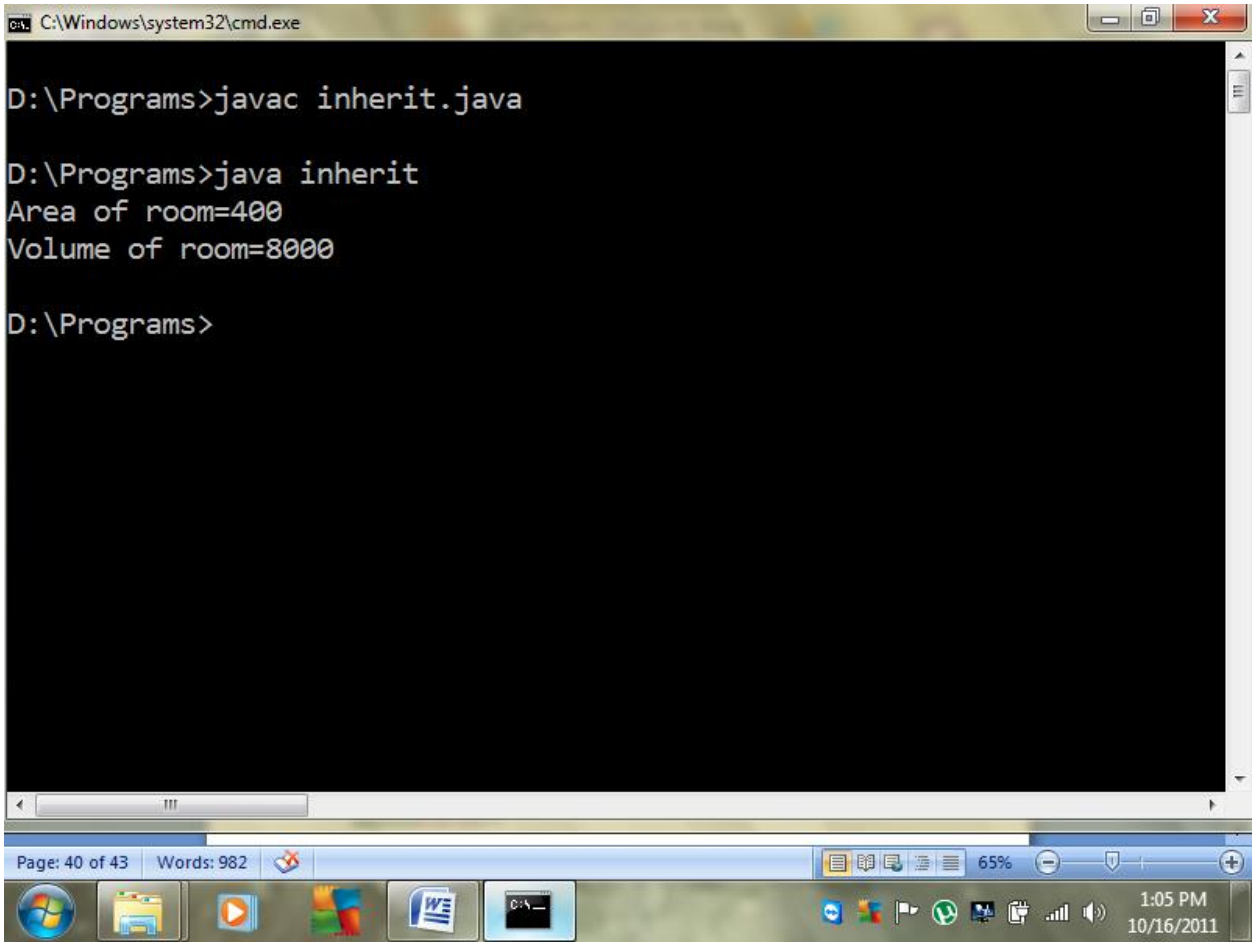

C:\Windows\system32\cmd.exe
D:\Programs>javac factorial.java
D:\Programs>java factorial 5
Factorial of5.0Number=120.0
D:\Programs>
Page: 38 of 42
Words: 981
65%
1:03 PM
10/16/2011

22.

```
/*Program to implement the concept of inheritance */
class room
{
	int length,breadth;
	room(int l,int b)
	{
		length=l;
		breadth=b;
	}
	void areaofroom()
	{
		System.out.println("Area of room="+(length*breadth));
	}
}
class bedroom extends room
{
	int height;
	bedroom(int l,int b,int h)
	{
		super(l,b);
		height=h;
	}
	void volumeofroom()
	{
```

```
                System.out.println("Volume of room="+(length*breadth*height));
        }
}
class inherit
{
        public static void main(String arg[])
        {
                bedroom r1=new bedroom(20,20,20);
                r1.areaofroom();
                r1.volumeofroom();
        }
}
```

Output:-

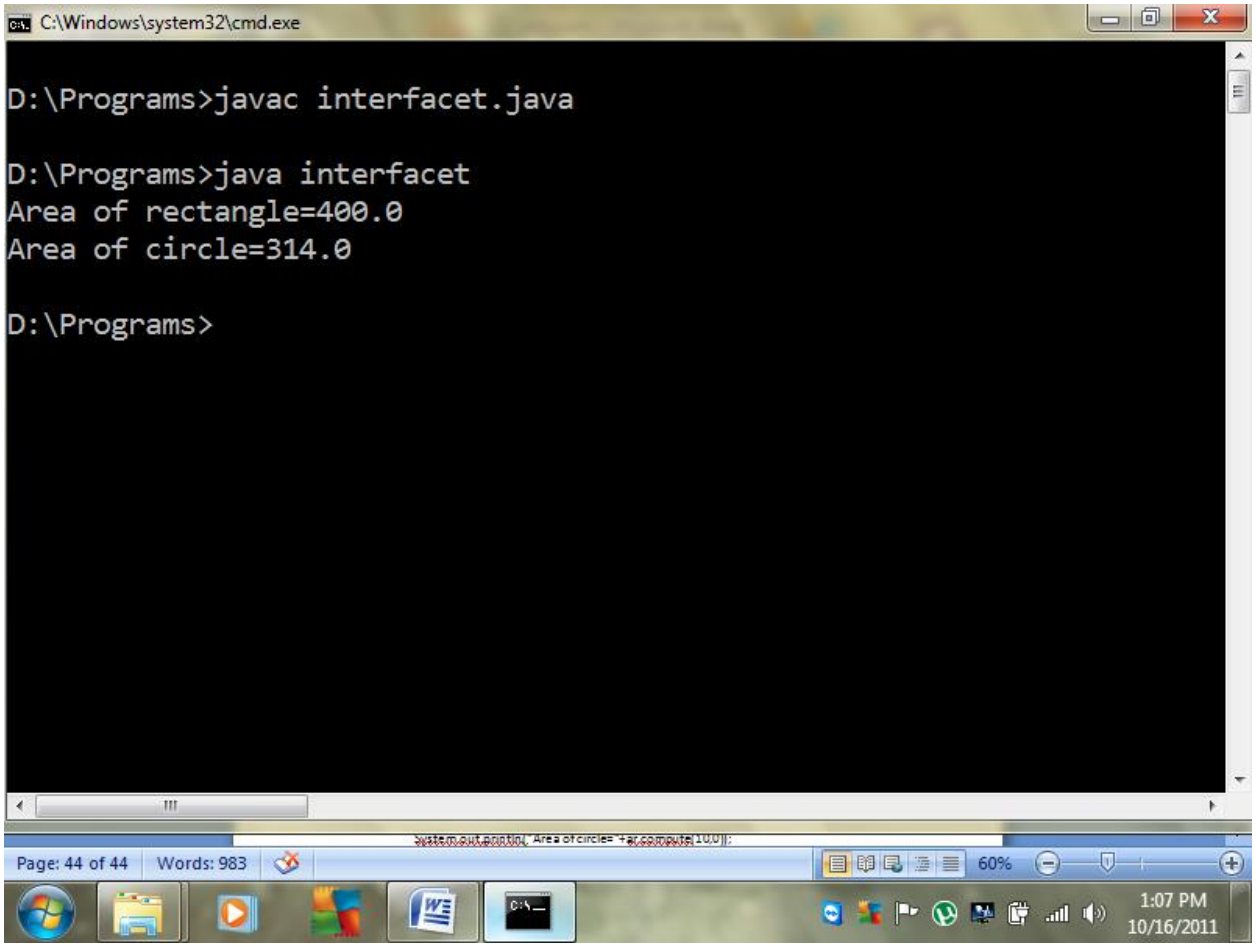

C:\Windows\system32\cmd.exe
D:\Programs>javac inherit.java
D:\Programs>java inherit
Area of room=400
Volume of room=8000
D:\Programs>
Page: 40 of 43
Words: 982
65%
1:05 PM
10/16/2011

23.

```
/*Program that illustrate the use of interfaces*/
interface area
{
        final static float pi=3.14F;
        float compute(float a,float b);
}
class rectarea implements area
{
        public float compute(float a,float b)
        {
                return(a*b);
        }
}
class circlearea implements area
{
        public float compute(float a,float b)
        {
                return(pi*a*a);
        }
}
class interfacet
{
```

```
	public static void main(String arg[])
	{
		rectarea rect=new rectarea();
		circlearea cir=new circlearea();
		area ar;
		ar=rect;
		System.out.println("Area of rectangle="+ar.compute(20,20));
		ar=cir;
		System.out.println("Area of circle="+ar.compute(10,0));
	}
}
```

Output:-


C:\Windows\system32\cmd.exe
D:\Programs>javac interfacet.java
D:\Programs>java interfacet
Area of rectangle=400.0
Area of circle=314.0
D:\Programs>
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60%
1:07 PM
10/16/2011