EXP2:TO FIND FACTORIAL OF A GIVEN NUMBER USING BUFFERCODE

```
import java.io.*;
class Factorial
{ public static void main(String z[])throws IOException
{
BufferedReader br=new BufferedReader(new
InputStreamReader(System.in)); int
n,fact=1;
System.out.println("enter a no.");
n=Integer.parseInt(br.readLine());
for(int i=1; i<=n; i++)
{ fact=fact*i;
}
System.out.println("factorial is:"+fact); }
}
```

EXP3 : WRITE A PROGRAM TO DETERMINE THE SUM OF THE FOLLOWING SERIES

1...1/1+1/2+1/3+1/4+....1/N

```
import java.io.*; class
Sum
{ public static void main(String
args[])throws IOException
{
int i,n; float
sum=0;
BufferedReader br=new
BufferedReader(new InputStreamReader(System.in));
```

```
String str;
System.out.print("Enter value of n:");
 str=br.readLine();
n=Integer.parseInt(str);
for(i=1; i<=n; i++)
{ sum=sum+1.0f/i;
}
System.out.println("Sum="+sum);  }
}
```

2....(2)1+1/2+1/3+1/4+...1/N

```
import java.io.*; class
SumSeries
{ public static void main(String args[])
throws IOException
{
int i,n,sign=1; float
sum=0;
BufferedReader br=new
BufferedReader(new InputStreamReader(System.in));
String str;
System.out.print("Enter value of n:");
str=br.readLine();
n=Integer.parseInt(str);
for(i=1; i<=n; i++)
{ sum=sum+1.0f/i*sign;
sign=sign*-1;
```

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

EXP 5: WRITE A PROGRAM TO COUNT THE NUMBER OF DIGITS AND SUM OF ALL DIGITS OF THE USER ENTERED NUMBER. ALSO FND THE REVERSE OF THE NUMBER.USING A WHILE LOOP.

```
import java.io.*; class
Digits
{ public static void main(String args[]) throws IOException
{ int sum=0,n,rev=0,c=0;
BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
System.out.println("Enter any number"); n=Integer.parseInt(br.readLine());
while(n!=0)
{ sum+=n%10;
rev=((rev*10)+(n%10));
n/=10; c++;
}
System.out.println("Sum="+sum);
System.out.println("Reverse="+rev);
System.out.println("No. of digits="+c);
}
}
```

EXP 8:WRITE A PROGRAM TO IMPLEMENT A SEQUENTIAL SEARCH ALGORITHM

```
import java.io.*;
class Search
{ public static void main(String arg[])throws IOException
```

```
{
int n,i,search;
String str;
BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
System.out.print("Enter the no. of element:");
str=br.readLine();
n=Integer.parseInt(str);
int a[]=new int[n];
for(i=0; i<=n-1; i++)
{
System.out.print("Enter the no.:"); str=br.readLine();
a[i]=Integer.parseInt(str);
}
System.out.print("Enter the no. to be searched:");
str=br.readLine();
search=Integer.parseInt(str);
for(i=0; i<=n-1; i++)
{
if(search==a[i])
break;
}
if(i==n)
System.out.println("No. not found");
else
System.out.println("Index=" +i);
}
}
```

EXP 9: WRITE A PROGRAM TO SORT THE ARRAY ELEMENTS IN ASCENDING ORDER

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

```
class Bubble
{ public static void main(String args[])
{
Scanner s=new Scanner(System.in);
int i,j,n,temp;
System.out.println("Enter no of elements to be sorted");
n=s.nextInt(); int a[]=new int[n];
System.out.println("Enter "+n+" elements");
for(i=0; i<n; i++)
{
a[i]=s.nextInt();
}
for(i=0; i<n-1; i++)
{ for(j=0; j<n-1; j++)
{
if(a[j]>a[j+1])
{ temp=a[j];
a[j]=a[j+1];
a[j+1]=temp;
}
}
}
System.out.println("Sorted array in ascending order is"); for(i=0;
i<n; i++)
{
System.out.println(" "+a[i]);
}
}
}
```

EXP 11: TO COUNT THE NUMBER OF VOWELS,BLANK SPACES,DIGITS & CONSONANTS IN A STRING

```
import java.util.*;
class Vowel
{ public static void main(String z[])
{
Scanner s=new Scanner(System.in);
String st;
System.out.println("enter a string");
st=s.nextLine(); int n=st.length();
char c[]=new char[n];
c=st.toCharArray();
int vowel=0,consonent=0,blank=0,digit=0;
for(int i=0; i<n; i++)
{ if(c[i]>='0' && c[i]<='9')
{ digit++;
}
else if(c[i]==' ')
blank++;
else if((c[i]>='A' && c[i]<='Z')||(c[i]>='a' &&c[i]<='z'))
{
if(c[i]=='a' ||c[i]=='e' ||c[i]=='i' ||c[i]=='o' ||c[i]=='u' ||c[i]=='A' ||c[i]=='E' ||c[i]=='I' ||c[i]=='O'
||c[i]=='U' )
vowel++;
else consonent++;
}
}
System.out.println(" blank space:" +blank+" \ndigits are:"+digit+" \nvowels are:"+vowel
+"\nconsonent are:"+consonent);
}
}
```

EXP 14: WRITE A PROGRAM TO FIND THE VALUES OF Ncr and Npr

```
import java.io.*;
class Factorial
{ public static void main(String args[])throws IOException
{
int n,r,ncr,npr;
BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
String str;
System.out.println("Enter the values of n and r to find nCr.");
str=br.readLine();
n=Integer.parseInt(str);
str=br.readLine();
r=Integer.parseInt(str);
ncr=fact(n)/(fact(r)*fact(n-r));
System.out.println("nCr="+ncr);
System.out.println("Enter the values of n and r to find npr");
str=br.readLine();
n=Integer.parseInt(str);
str=br.readLine();
r=Integer.parseInt(str);
npr=fact(n)/fact(n-r);
System.out.println("nPr="+npr);
}
static int fact(int n)
{
int i,fact=1;
for(i=1; i<=n; i++)
{
fact=fact*i;
```

```
}
 return fact;
}
}
```

EXP 15 : WRITE A PROGRAM TO ACCEPT A NUMBER AND COMPUTE THE SUMMATION OF DIGITS RECURSIVELY

```
import java.io.*;
class Digits
{ public static void main(String args[])throws IOException
{ int n,sum;
BufferedReader br=new BufferedReader(new
InputStreamReader(System.in));
String str;
System.out.println("Enter a no");
str=br.readLine();
n=Integer.parseInt(str);
sum=add(n);
System.out.println("Sum of digits="+sum);
}
static int add(int n)
{ if(n==0) return 0;
else return(n%10+add(n/10));
}
}
```