public static void inc(int n)

{

if(n==0 )

{ return;

}

inc(n-1);

System.out.println(n);

//1-2-3-4-5

}

public static void INC\_DEC(int n)

{

if(n==0 )

{

return;

}

System.out.println(n);

inc(n-1);

System.out.println(n);

}

public static int f(int n)

{

if(n==1)

{

return n;

}

int previous\_n=f(n-1);

int ans=n\*previous\_n;

return ans;

}

public static int pow1(int x,int n)

{

if(n==1)

{

return x;

}

int ret=pow1(x,n-1);

int ans=x\*ret;

return ans;

}

public static void zig(int n)

{

if(n==0)

{

return;

}

System.out.println("Pre"+n); //1

zig(n-1); //2

System.out.println("In"+n); //3

zig(n-1); //4

System.out.println("Post"+n);//5

}

public static int Last\_idx(int a[],int n,int s)

{

int ans1=0;

if(s==a.length)

{

return ans1;

//return -1;

}

else if(a[s]==n)

{

ans1=ans1+1;

}

int ret=ans1+fLast\_idx(a,n,++s);

return ret;

}

public static int first\_idx(int a[],int n,int s)

{

int ans1=0;

if(s==a.length)

{

return -1;

}

else if(a[s]==n)

{

return s+1;

}

int ret=ans1+first\_idx(a,n,++s);

return ret;

}

public static int[] All\_idx(int arr[],int n,int s,int fsf)

{

if(s==arr.length)

{

return new int[fsf];

}

if(arr[s]==n)

{

int arr1[]=All\_idx(arr,n,++s,fsf+1);

arr1[fsf]=s;

return arr1;

}

else

{

int arr1[]=All\_idx(arr,n,++s,fsf);

return arr1;

}

}

public static ArrayList<String> gss(String str)

{

if(str.length()==0)

{

ArrayList<String> a11=new ArrayList<>();

a11.add(" ");

return a11;

}

char ch=str.charAt(0);

String sub\_str=str.substring(1);

ArrayList<String> result=gss(sub\_str);

ArrayList<String> ans=new ArrayList<String>();

for(String tvse:result)

{

ans.add(""+tvse);

ans.add(ch+tvse);

}

return ans;

}

public static ArrayList<String> gPath(int str)

{

if(str==0)

{

ArrayList<String> a1=new ArrayList<>();

a1.add("");

return a1;

} else if(str<0)

{ ArrayList<String> a1=new ArrayList<String>();

return a1; }

ArrayList ans=new ArrayList<String>();

ArrayList<String> p1=gPath(str-1);

ArrayList<String> p2=gPath(str-2);

ArrayList<String> p4=gPath(str-4);

for(String P:p1)

{

ans.add(1+P);

}

for(String P:p2)

{

ans.add(2+P);

}

for(String P:p4)

{

ans.add(4+P);

}

return ans;

}