

WEEK -2 FLOW CONTROL STATEMENT

Consider the following sequence:

1st term: 1

2nd term: 1 2 1

3rd term: 1 2 1 3 1 2 1

4th term: 1 2 1 3 1 2 1 4 1 2 1 3 1 2 1

And so on. Write a program that takes as parameter an integer n and prints the nth terms of this sequence.

Example Input:

1

Output:

1

Example Input:

4

Output:

1 2 1 3 1 2 1 4 1 2 1 3 1 2 1

For example:

Input	Result
1	1
2	1 2 1
3	1 2 1 3 1 2 1
4	1 2 1 3 1 2 1 4 1 2 1 3 1 2 1

```
import java.util.*;

public class Main {

    public static void main (String[] args){

        Scanner sc=new Scanner (System.in);

        int a=sc.nextInt();

        String b="1";

        for (int i=2;i<=a;i++){

            b+= " "+i+" "+b;

        }

        System.out.print(b);

    }

}
```

}

	Input	Expected	Got	
✓	1	1	1	✓
✓	2	1 2 1	1 2 1	✓
✓	3	1 2 1 3 1 2 1	1 2 1 3 1 2 1	✓
✓	4	1 2 1 3 1 2 1 4 1 2 1 3 1 2 1	1 2 1 3 1 2 1 4 1 2 1 3 1 2 1	✓

Passed all tests! ✓

Write a Java program to input a number from user and print it into words using for loop. How to display number in words

Logic to print number in words in Java programming.

Example

Input

1234

Output

One Two Three Four

Input:

16

Output:

one six

For example:

Test	Input	Result
1	45	Four Five
2	13	One Three
3	87	Eight Seven

```
import java.util.Scanner ;
```

```
public class Main {
```

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

```

Scanner sc=new Scanner (System.in);
int a=sc.nextInt ();
int c=0;
int rem;
int [] arr=new int [10];

for (int i=0;i<15;i++){
    if (a!=0){
        rem=a%10;
        a=a/10;
        arr[i]=rem;
        c++;
    }
    else {
        break;
    }
}
int i=c-1;
while (i>=0)
{
    switch (arr[c-1]){
        case 1 :
            System.out.print("One ");break;

            case 2: System.out.print("Two ");break;
            case 3: System.out.print("Three ");break;
    }
}

```

```

        case 4 : System.out.print ("Four ");break;
        case 5: System.out.print("Five ");break;
        case 6 : System.out.print("Six ");break;
        case 7: System.out.print("Seven ");break;
        case 8: System.out.print("Eight ");break;
        case 9: System.out.print("Nine ");break;

    }

    i--;

    c--;

}

}

}

```

	Test	Input	Expected	Got	
✓	1	45	Four Five	Four Five	✓
✓	2	13	One Three	One Three	✓
✓	3	87	Eight Seven	Eight Seven	✓

Passed all tests! ✓

Consider a sequence of the form 0, 1, 1, 2, 4, 7, 13, 24, 44, 81, 149...

Write a method program which takes as parameter an integer n and prints the nth term of the above sequence. The nth term will fit in an integer value.

Example Input:

5

Output:

4

Example Input:

8

Output:

24

Example Input:

11

Output:

149

For example:

Input	Result
5	4
8	24
11	149

```
import java.util.Scanner;

public class Main {

    public static void main (String [] args ){

        Scanner sc=new Scanner (System.in);

        int a=sc.nextInt();

        int res=0;

        if (a==1){

            System.out.print("0");

        }

        else if (a==2 || a==3 ){

            System.out.print("1");

        }

        else if (a>3){

            int s1=0,s2=1,s3=1,s4=0;

            for (int i=0;i<a-3;i++){
```

```
s4=s3+s2+s1;  
s1=s2;  
s2=s3;  
s3=s4;  
}  
System.out.print(s4);  
}  
}
```

	Input	Expected	Got	
✓	5	4	4	✓
✓	8	24	24	✓
✓	11	149	149	✓

Passed all tests! ✓