

Q) Write a program to print the following Pattern.

Sample Input:

Enter the Character to be printed: %

Max Number of time printed 3

%

Y. Y.

X. X. %

Code:

Scanner input = new Scanner (System.in);

Char c = input.next().charAt(0);

int n = input.nextInt();

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

{

for (int j = 1; j <= i; j++)

{

System.out.print(c);

}

System.out.println();

}

Q) Find the year of the given data is leap year <sup>or</sup> not.

Sample Input:

Enter Date: 04/11/1947

Sample Output:

Given year is Non Leap year.

Code:

import java.util.Scanner

Public class A

{ Public static void main (String [] args)

{

```

Scanner input = new Scanner(System.in);
System.out.print("Enter year:");
String year = input.next();
String a[] = year.split("/");
String d = a[2];
int num = Integer.parseInt(d);
If ((num % 4 == 0 & & num % 100 != 0) || num % 400 == 0)
    System.out.println("It is a leap year");
else
    System.out.println("Not a leap year");
}
}

```

Test Case:

- 1.) 04/11/1947    3.) 31/45/1996    5.) 00/00/2000.
- 2.) 11/15/1936    4.) 64/09/1947

23.) Find the number of factors for the given number.

Sample Input:

Given number: 100

Sample Output:

Number of factors=9.

Code:

```

Scanner input = new Scanner(System.in);
int n = input.nextInt();
int factors = 0;
for (int i = 1; i <= n; i++)
{
    if (n % i == 0)
        factors = factors + 1;
}

```

```

System.out.print("Number of factors = " + factors);
1. Scanner input = new Scanner(System.in);
int n = input.nextInt();

```

```
for(int i=1; i<=n; i++)  
{  
    if(n % i == 0)  
        factors++;
```

```
}  
System.out.print(factors);
```

- 24.) Write a program to print the given number is perfect number (or) not?

Sample Input:

Given Number = 6

Sample Output:

It's a perfect number.

Code:

```
Scanner input = new Scanner (System.in);  
int n = input.nextInt();  
int factor = 0;  
for(int i=1; i<n; i++)  
{  
    if(n % i == 0)  
        factor = factor + i;  
}  
if(n == factor)  
    System.out.print("It's a perfect number");
```

- 25.) Write a program to print the number of vowels in the given statement?

Sample Input:

Sreeatha School of Engineering

Sample output:

Number of vowels = 12

```

Scanner input = new Scanner (System.in);
String name = input.nextLine();
int len = name.length();
char a[] = new char [len];
int Vow = 0;
for (int i=0; i<len; i++)
{
    a[i] = name.charAt(i);
    if (a[i] == 'a' || a[i] == 'e' || a[i] == 'i' || a[i] == 'o' || a[i] == 'u'
        || a[i] == 'A' || a[i] == 'E' || a[i] == 'I' || a[i] == 'O' || a[i] == 'U')
        Vow = Vow + 1;
}
System.out.println(Vow);
}

```

Q6 Write a program to print constant and vowels separately in the given word.

Sample Input:

Given Word : Engineering

Sample Output:

Consonants: ng n r ng

Vowels: e i e e i

```

Scanner input = new Scanner (System.in);
String name = input.nextLine();
int len = name.length();
char a[] = new char [len];
char Vout[] = new char [len];
char Con[] = new char [len];
int V=0, C=0;
for (int i=0; i<len; i++)
{
    a[i] = name.charAt(i);
    if (a[i] == 'a' || a[i] == 'e' || a[i] == 'i' || a[i] == 'o' || a[i] == 'u'
        || a[i] == 'A' || a[i] == 'E' || a[i] == 'I' || a[i] == 'O' || a[i] == 'U')
        Vout[i] = 'V';
    else
        Vout[i] = 'C';
}
System.out.println("Vowels : " + Vout);
System.out.println("Consonants : " + Con);

```

```

a[i] = name.charAt(i);
if (a[i] == 'a' || a[i] == 'e' || a[i] == 'o' || a[i] == 'u'
    || a[i] == 'A' || a[i] == 'E' || a[i] == 'O' || a[i] == 'U') {
    Vow[v] = a[i];
    v++;
}
else {
    con[c] = a[i];
    c++;
}
System.out.print("Consonants:");
for (int i = 0; i < v; i++) {
    System.out.print(Vow[i]);
}
System.out.print("In Vowels:");
for (int j = 0; j < c; j++) {
    System.out.print(con[j]);
}

```

27.) Write a program to print the Fibonacci Series.

```

Scanner input = new Scanner(System.in);
int n = input.nextInt();
int a1 = 0, a2 = 1;
for (int i = 0; i < n; i++) {
    System.out.print(a1 + " ");
    int a3 = a1 + a2;
    a1 = a2;
    a2 = a3;
}

```

28.) Write a program to find the Square, Cube of the given decimal Number.

```
Scanner input = new Scanner (System.in);
float n = input.nextFloat();
System.out.print("Square: " + (n * n));
System.out.print("Cube: " + (n * n * n));
```

29.) Program to find the frequency of each element in the array.

```
import java.util.Arrays;
```

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

```
public class ase {
```

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

```
        Scanner input = new Scanner (System.in);
```

```
        int a [ ] = new int [ ] { 1, 2, 8, 32, 2, 2, 5, 1 };
```

```
        int t [ ] = new int [ a.length ];
```

```
        int visited = -1;
```

```
}
```

```
        if (t [ i ] == visited) {
```

```
            t [ i ] = count
```

```
}
```

```
        for (int i = 0; i < a.length; i++) {
```

```
            if (t [ i ] != visited) {
```

```
                System.out.println (a [ i ] + " " + t [ i ]);
```

```
}
```

```
}
```

30.) Hollow Square

```
public class Square {
```

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

```
        int n = 5;
```

```
        char c = input.next ().charAt (0);
```

```
        for (int i = 1; i < n; i++) {
```

19

Summer went.  
Autumn, winter,  
and spring went.  
The night went.

the  
present  
moment.  
I am  
not  
able  
to  
say  
whether  
you  
will  
be  
able  
to  
see  
me  
again  
or  
not.

3

2