

Assignment - 3

23.) WAP to print the following pattern

```

% %
% % %

```

```

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 ();
}

```

22.) Leap year or not

Enter date: 04/11/1947

Sample Output:

Given Year is Non leap Year

```

import java.util. Scanner ;
public class a1
{
    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");

```

23.) Find the number factors for the given number

Given number = 100

Number of factors = 9

```

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.println("Number of factors
= " + factors);

```

1. 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++;
```

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

Q4.) Perfect number or not

Given number = 6

It's a perfect number

```
Scanner input = new Scanner(System.in);  
int m = input.nextInt();
```

```
int factors = 0;
```

```
for (int i = 1; i < m; i++)
```

```
{
```

```
    if (m % i == 0)
```

```
        factors = factors + i;
```

```
}
```

```
if (m == factors)
```

```
System.out.println("It is a  
Perfect Number");
```

```
int factors = 0;  
for (int i=1; i<n; i++)  
{  
    if (n % i == 0)  
        factors++;  
}  
System.out.println(factors);
```

Q4.) Perfect numbers or not

Given number = 6

It's a perfect number

```
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 + i;
```

```
{
```

```
if (n == factors)
```

```
System.out.println("It is a  
Perfect Number");
```

25.) Number of vowels in the given Statement

Sample input:

Sreeetha School of Engineering

O/P:

No. 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] == 'o' || a[i] == 'u' ||

a[i] == 'A' || a[i] == 'E' ||

a[i] == 'O' || a[i] == 'U')

vow = vow + 1;

}

System.out.println (vow);

26.) Program to print hollow Square Symbol

Pattern

Scanner input = new Scanner (System.in);

int n = 5;

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

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

{

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

{

 if (i==1 || j==1 || i==n || j==n)
 System.out.println(c + " ");

 else

 System.out.println(" ");

}

 System.out.println();

}

26.)

Print Consonants and Vowels separately
in given word.

Given word : Engineering

Consonants :- n g m r n g

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 vow[] = 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] == 'O' || a[i] == 'U') {

 vow[v] = a[i];

 v++;

```

        } else {
            vov[i] = a[i];
            i++;
        }
    }

    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.) fibonacci series

Enter n value: 6

O/P :

0 1 1 2 3 5

```

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

```

28.) Paint below pattern

1
2 2
3 3 3
4 4 4 4

```
Scanner input = new Scanner (System.in);
int n = input.nextInt();
for (int i=1; i<n; i++)
{
    for (int j=1; j<=i; j++)
    {
        System.out.print(i);
    }
    System.out.println();
}
```

29.) find the square cube

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

30.) Perfect number or not

Given number = 6

It is a perfect number

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 + i;

}

if (n == factors)

System.out.println ("It is a perfect
number");