

## ASSIGNMENT -1

1. sum of numbers upto n:

18 ✓  
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```
import java.util.*;  
class sum{  
    public static void main(String[] args){  
        Scanner sc = new Scanner(System.in);  
        int n = sc.nextInt();  
        int sum=0;  
        for(int i=0; i<n; i++){  
            sum+=i;  
        }  
        System.out.println(sum);  
    }  
}
```

Input: n=10

Output: sum is 55.

2. prime number

```
import java.util.*;  
class prime{  
    public static void main(String[] args){  
        Scanner sc = new Scanner(System.in);  
        int n = sc.nextInt();  
        int count = 0;  
        for(int i=2; i<n; i++){  
            if(n % i == 0){  
                count++;  
            }  
            if(count >= 2){  
                System.out.println("prime");  
            }  
        }  
    }  
}
```

```
else {
    System.out.println ("not prime");
}
```

Input : n=3

Output : prime

### factorial of number:

```
class factorial {
```

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

```
        int n=6
```

```
        int fact=1;
```

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

```
            fact *= i;
        }
```

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

Output : 720

### reverse of a number:

```
class reverse {
```

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

```
        int n=141, rev=0;
```

```
        while (n>0) {
```

```
            int rem = n%10;
```

```
            rev = rev*10+rem;
```

```
            n = n/10;
        }
```

```
        System.out.println ("rev=");
    }
}
```

Output : 141

## Armstrong number:

```
class armstrong {  
    public static void main(String[] args) {  
        int n=153,temp=n,sum=0;  
        while (n>0){  
            int rem=n%10;  
            sum+=rem*rem*rem;  
            n=n/10;  
        }  
        if (sum==temp){  
            System.out.println("Armstrong number");  
        } else {  
            System.out.println("not");  
        }  
    }  
}
```

Output: 153 is Armstrong number.

## palindrome:

```
class palindrome {  
    public static void main(String[] args) {  
        int n=1221, palin=0, i=n;  
        while (n>0){  
            int rem=n%10;  
            palin=palin*10+rem;  
            n=n/10;  
        }  
        if (palin==i){  
            System.out.println("palindrome");  
        } else {  
            System.out.println("not palindrome");  
        }  
    }  
}
```

Output: palindrome.

### 8. sum of digits:

```
class sumofdigits{  
    public static void main (String [] args) {  
        int n = 123; sum=0;  
        while (n>0){  
            int rem=n%10;  
            sum+=rem;  
            n=n/10;  
        }  
        System.out.println (sum);  
    }  
}
```

Output: 6

### 9. divisible by 5 and 7 (option)

```
class divisible{  
    public static void main (String [] args) {  
        int n=100;  
        for (i=1; i<=n; i++) {  
            if ((i%5==0) & (i%7==0)){  
                System.out.println(i);  
            }  
        }  
    }  
}
```

Output: 35 to

### 10. perfect number

```
class perfect{  
    public static void main (String [] args) {  
        int sum=0, n=6; o>n;  
        for (i=1; i<n; i++) {  
            sum+=sum+i;  
        }  
        if (sum==n){  
            System.out.println ("perfect");  
        }  
        else {  
            System.out.println ("not perfect");  
        }  
    }  
}
```

Output: 6 is perfect number

### sum of even-odd :

```
class sumofe-o {
    public static void main (String [] args) {
        int n=10, eSum=0, oSum=0;
        for (int i=0; i<n; i++) {
            if (i%2==0) {
                eSum+=i;
            } else {
                oSum+=i;
            }
        }
        System.out.println ("eSum: " + eSum + ", " + "oSum: " + oSum);
    }
}
```

output :  
eSum=30, oSum=25

### 2. leap year :

```
class leap_year {
    public static void main (String [] args) {
        int year = 2024;
        if (year%400==0 || year%100==20) {
            System.out.println ("leapyear");
        } else {
            System.out.println ("not leapyear");
        }
    }
}
```

output : leapyear

### 3. even or odd :

```
class evenor-odd {
    public static void main (String [] args) {
        int n=400;
    }
}
```

? if ( $n \% 2 == 0$ ) {

    System.out.println ("even");

else {

    System.out.println ("odd");}

Output : even

#### 15. GCD and LCM;

class GCD\_LCM {

    public static void main (String [] args) {

        int a = 2, b = 4, temp;

        while (b > 0) {

            temp = b;

            b = a % b;

            a = temp; }

        int gcd = a;

        int lcm = (a \* b) / gcd;

        System.out.println ("GCD: " + gcd);

        System.out.println ("LCM: " + lcm); }

Output} .

GCD: 2

LCM: 4

#### 16. strong numbers;

class StrongNumber {

    public static void main (String [] args) {

        int n = 145, sum = 0, rem, fact;

        int temp = n;

```
while (n>0) {
    rem=n%10;
    fact=1;
    for (i=1;i<=n;i++) {
        fact=fact*i;
    }
    sum=sum+fact;
    n=n/10;
}
if (sum==temp) {
    System.out.println("strong");
} else {
    System.out.println("not strong");
}
```

Output:

strong.

#### 7 celeciustofoerheit;

```
class temperature{
    public static void main (String[] args){
        double c=39.0;
        double farenheit=(c*(9/5))+32;
        System.out.println(farenheit);
    }
}
```

Output: 102.2

### 18. Binary to Decimal:

```
class Binary.Decimal{  
    public static void main (String [] args) {  
        String binary = "1010";  
        int decimal = Integer.parseInt (binary, 2);  
        System.out.println (decimal);  
    }  
}
```

output : 10

### 19. Decimal to Binary:

```
class Decimal.Binary{  
    public static void main (String [] args) {  
        int decimal = 10;  
        String binary = Integer.toBinaryString (decimal);  
        System.out.println (binary);  
    }  
}
```

output : 1010

### 20. Addition of 2 Numbers:

```
class ADD{  
    public static void main (String [] args) {  
        int a = 2, b = 3, c = a + b;  
        System.out.println (c);  
    }  
}
```

output :

$$c = 5$$