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① Sum of no. upto n:

```
import java.util.*;  
class sum {  
    public static void main(String arg[]) {  
        Scanner sc = new Scanner(System.in);  
        int n = sc.nextInt();  
        int sum = 0;  
        for (int i = 1; i <= n; i++) {  
            sum = sum + i;  
        }  
        System.out.println("Sum: " + sum);  
    }  
}
```

Input :- n = 10

Output :- sum is 55

② prime number:

```
import java.util.*;  
class prime {  
    public static void main(String arg[]) {  
        Scanner sc = new Scanner(System.in);  
        int n = sc.nextInt();  
        int count = 0;  
        for (int i = 1; i < n; i++) {  
            if (n % i == 0) {  
                count++;  
            }  
        }  
        if (count == 2) {  
            System.out.println("Prime");  
        }  
        else {  
            System.out.println("non");  
        }  
    }  
}
```

```

}
}
Input: n=3
Output: prime.

```

③ 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 = fact * i;
        }
        System.out.println (fact);
    }
}

```

Output: 720.

④ Reverse of a number:

```

class Reverse-of-number {
    public static void main (String args[]) {
        int n=341;
        int rev=0;
        while (n>0) {
            i=n%10;
            rev = rev*10 + i;
            n = n/10;
        }
        System.out.println ("Reversed no: " + rev);
    }
}

```

Output: 143.

Armstrong Number

```
class Armstrong {  
    public static void main (String args[]) {  
        int n = 153;  
        int temp = n;  
        while (n > 0) {  
            int i = n % 10;  
            sum = 1 * i * i;  
            n = n / 10;  
        }  
        if (sum == temp) {  
            System.out.println ("Armstrong");  
        }  
        else {  
            System.out.println ("Nope");  
        }  
    }  
}
```

Palindrome

```
class Palindrome {  
    public static void main (String args[]) {  
        int n = 12321;  
        int rev = 0;  
        while (n > 0) {  
            int i = n % 10;  
            rev = rev * 10 + i;  
            n = n / 10;  
        }  
    }  
}
```

⑦ Sum of digits:-

```
class sum of - digits {  
    public static void main (String args[]) {  
        int n = 123;  
        int sum = 0;  
        while (n > 0) {  
            i = n % 10;  
            sum += i;  
            n = n / 10;  
        }  
        System.out.println ("The sum is " + sum);  
    }  
}
```

⑧ Divisible by 5 & 7 upto n:-

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

Output:-

35

70

② Perfect numbers

class perfect {

public static void main(String args[]) {

int sum = 0;

int n = 28;

int o = n;

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

if (n % i == 0) {

sum = sum + i;

}

if (sum == o) {

System.out.println("perfect");

}

else {

System.out.println("nope");

}

⑩ Sum of even-odd :

class sum-of-even-odd {

public static void main(String args[]) {

int n = 0; e sum = 0, osum = 0;

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

if (i % 2 == 0)

{ e sum += i;

} else { osum += i;

}

System.out.println("esum" + esum);

System.out.println("osum" + osum);

output:

perfect

output:

esum = 30

osum = 25

11) Leap Year

```

class LeapYear {
    public static void main(String args[]) {
        int year = 2024;
        if (year % 4 == 0 || year % 100 == 0 && year % 1000 != 0) {
            System.out.println("Leap year");
        }
        else {
            System.out.println("Not leap year");
        }
    }
}

```

Output : Leap year

12) Even or odd

```

class even-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.

13) 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

14) Strong number

Strong number

```

class strong number {
    public static void main (String args[]) {
        int n = 145, sum = 0, rem, fact, temp = n;
        while (n > 0) {
            rem = n % 10;
            fact = 1;
            for (i = 1; i <= rem; i++) {
                fact = fact * i;
            }
            sum = sum + fact;
            n = n / 10;
        }
        if (sum == temp) {
            System.out.println("Strong");
        }
        else {
            System.out.println("Nope");
        }
    }
}

```

Output:-

Strong

15) Celsius to Fahrenheit:

```
class Temperature {
```

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

```
        double celsius = 39.0;
```

```
        double fahrenheit = (celsius * 9/5) + 32; Output:
```

```
        System.out.println(fahrenheit); 102.2
```

```
    }
```

```
}
```

16) Fahrenheit to Celsius:

```
class Temperature {
```

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

```
        double fahrenheit = 102.2;
```

```
        double celsius = (fahrenheit - 32) * 5/9;
```

```
        System.out.println(celsius);
```

```
    }
```

```
}
```

Output:-

39.0

Binary to Decimal :-

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

Output :-

10

10) 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 Addition {  
    public static void main (String args[]) {  
        int a=2, b=3, c=a+b;  
        System.out.println("sum is: " + c);  
    }  
}
```

Output:-

sum is 5.