- Write a recursive method that gets a number (num) and prints all numbers from 1 to num.

```java
public static void printOneToN(int n){
    if(n == 1)
        System.out.println(1);
    else{
        printOneToN(n-1);
        System.out.println(n);
    }
}
```

- Write a recursive method that gets a number (num) and prints all numbers from num to 1.

```java
public static void printNToOne(int n){
    if(n == 1)
        System.out.println(1);
    else{
        System.out.println(n);
        printNToOne(n-1);
    }
}
```

- Considering the following method, what is the return value for mystery(25, 15)?
  What is mystery doing?

Breaking down: mystery(25,15) → mystery(10,15) → mystery(10,5) → mystery(0,5)
Returning: 5 → 5 → 5 → 5
It is GCD (greatest common divisor)

```java
public static int mystery(int x, int y){
    if(x == 0)
        return y;
    else if(y == 0)
        return x;
    if(x > y)
        return mystery(x % y , y);
    else
        return mystery(x , y % x);
}
```