

## Problem 6\GCD.java

```
1 public class GCD {
2     // Method to calculate the greatest common divisor (GCD)
3     public static int gcd(int p, int q) {
4         if (q == 0) {
5             return p; // Base case: if q is 0, return p
6         } else {
7             return gcd(q, p % q); // Recursive call with q and p % q
8         }
9     }
10
11     public static void main(String[] args) {
12         int num1 = 56;
13         int num2 = 98;
14
15         System.out.println("GCD of " + num1 + " and " + num2 + " is: " + gcd(num1, num2));
16     }
17 }
18
```