**Recursion - Homework**

1. Write a method BigInteger Power(int x, int y)that raises x to the y power recursively.

***Constrain:***

***X*** and ***Y*** are between ***1*** and ***7 000***

**Input:** [ 2 , 5], [ 3 , 3 ], [ 7\_000, 7\_000 ]

**Output:** [ 32 ], [ 27 ], [ ….. ]

1. Write a method int GCD(int x, int y)to find recursively Greatest Common Divisor of two non-zero positive integers.

**Hint:**

Use [**Euclidean algorithm**](file:///C:\Users\llechev\Downloads\Telegram%20Desktop\Recurtion-Homework.docx) **.**

***Constrain:***

***X*** and ***Y*** are between***1*** and ***2 147 483 647***

**Input:** [ 2, 6 ], [ 3, 6 ], [ 16,4 ]

**Output:** [ 2 ], [ 3 ], [ 4 ]

**Task 1 Extension**

Write a method to count number of digits if the input is [ 7\_000, 7\_000]