```
1  using System;
2  using System.IO;
3
4  namespace Algorithms
5  {
6      public class Euclid
7      {
8          public static void Main()
9          {
10             new Euclid().Run(Console.In, Console.Out);
11         }
12
13         public void Run(TextReader reader, TextWriter writer)
14         {
15             int m = int.Parse(reader.ReadLine());
16             int n = int.Parse(reader.ReadLine());
17
18             var results = GCD(m, n);
19             writer.Write(results);
20
21             Console.ReadLine();
22
23         }
24         /// <summary>
25         /// Computes Greates Common Divisor by Euclids Algorithm
26         /// Input: Two nonnegative, not-both-zero integers m and n
27         /// Output: Greatest common divisor of m and n
28         /// </summary>
29         /// <param name="m">First Number</param>
30         /// <param name="n">Second Number</param>
31         /// <returns>Greatest Common Divisor or m and n</returns>
32         public int GCD(int m, int n)
33         {
34             while (n != 0)
35             {
36                 int r = m % n;
37                 m = n;
38                 n = r;
39             }
40             return m;
41         }
42     }
43 }
44
```