**7 kyu**

**The Most Amicable of Numbers**

16293% of 4484 of503[RichAWarren](https://www.codewars.com/users/RichAWarren)

C#

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Amicable numbers are two different numbers so related that the sum of the proper divisors of each is equal to the other number. (A proper divisor of a number is a positive factor of that number other than the number itself. For example, the proper divisors of 6 are 1, 2, and 3.)

For example, the smallest pair of amicable numbers is (220, 284); for the proper divisors of 220 are 1, 2, 4, 5, 10, 11, 20, 22, 44, 55 and 110, of which the sum is 284; and the proper divisors of 284 are 1, 2, 4, 71 and 142, of which the sum is 220.

Derive function amicableNumbers(num1, num2) which returns true/True if pair num1 num2 are amicable, false/False if not.

See more at <https://en.wikipedia.org/wiki/Amicable_numbers>

<https://www.codewars.com/kata/the-most-amicable-of-numbers/csharp>

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace ConsoleApp1

{

class Program

{

static int SumDivisores(int n)

{

List<int> div = new List<int>();

int sum = 0;

for (int i = 1; i \* i <= n; i++)

{

if (n % i == 0)

{

div.Add(i);

sum += i;

if (n / i != i)

{

if (n / i != n)

{

div.Add(n / i);

sum += (n / i);

}

}

}

}

//div.Sort();

//foreach(int item in div)

//{

// Console.Write(item + " ");

//}

//Console.WriteLine(" = " + sum);

return sum;

}

public static bool AmicableNumbers(int num1, int num2)

{

return SumDivisores(num1) == num2 && SumDivisores(num2) == num1;

}

static void Main(string[] args)

{

AmicableNumbers(1184, 1210);

Console.ReadLine();

}

}

}