**CS 20 Web Programming  
Amicable Numbers**

## Deliverables

* PDF file with URL of site and the code

## Objectives

## This assignment will give you practice in using Javascript as a programming language.

## Tasks

Your task is to use Javascript to determine if two numbers are amicable.   
A pair of numbers are amicable if their factors (excluding themselves) add up to each other. (A factor is a number that divides evenly into another number.)

**Example: the numbers 220 and 284 are amicable, because the factors of 220 are [1, 2, 4, 5, 10, 11, 20, 22, 44, 55, 110] and sum to 284, and the factors of 284 are [1, 2, 4, 71, 142] and sum to 220.**

*The following is required for this assignment:*

* Get two values from the user to check if they are amicable. To get the numbers, *use a form with two input boxes and a button.*
* Display the result in a <div> below the button as “The numbers: xxx and yyy are amicable”  
  “The numbers: xxx and yyy are not amicable” where xxx and yyy are the numbers you read from the form.
* Create a second div where you will display all of the factors for each of the numbers.
* You must use functions – you will be graded in part on how modular you can make your program. Hint: a helpful function would be: isAFactor(x,y) that returns true if x is a factor of y.
* You must use arrays to store the factors.

## Rubric

Runs correctly online 50%

Code quality/ demonstrates 50%  
the skills learned in class.