Quantitative Reasoning 28:
The Magic of Numbers

Homework 10

Assigned on March 4
Due at 5:00 p.m. March 7

Please submit problem sets to the boxes outside the Math Department's main office, on the third floor of the Science Center (Room 325).

Reading:

Gross-Harris, Chapter 9

Problems:

Please explain your reasoning and show your work.

1. (a) Find the greatest common divisor of 161 and 205.

   (b) Find whole numbers x and y so that $161x + 205y = 1$.

2. (a) Find the greatest common divisor of 111 and 234.

   (b) Find whole numbers x and y so that $111x + 234y = 6$.

3. (a) Find the greatest common divisor of 186 and 270.

   (b) For which whole numbers m is it possible to find whole numbers x and y so that $186x + 270y = m$?