# Math 195: Demystifying Mathematics

### Homework 3 : Due February 14

For both these problems, you should write your answer in *words and sentences and paragraphs*, not as a bunch of math symbols. Imagine you are explaining to a friend why the statements below are true and use words (and maybe the occasional judicious math symbol). Think of telling a story to explain the answers in your own words. While being correct is generally important (!), I am mainly looking for good, well articulated ideas.

1. In class, we are finding a formula for all the primitive Pythagorean triples. The goal of this problem is for you to work through it carefully yourself (we will finish Monday) and write up a complete explanation in your own words. Your submission will likely be quite a few paragraphs long.

   I am a firm believer in the idea that writing helps us process and understand any subject better, so view this as a chance to understand the arguments from class better.

2. The hypotenuse (the long side) of a right triangle with integer length sides can never be 7. Why not?