Math 42-Number Theory
Problem of the Day #13
Due Tuesday, March 22 2011

1. List the natural numbers less than 100 that can be written as a sum of two squares. (One of those squares is allowed to be 0, so, for example, we'll say that since $4 = 2^2 + 0^2$, 4 is the sum of two squares.) Is it true that when you multiply two numbers that are the sums of two squares that you still get a number that is the sum of two squares?