PORTFOLIO #2

Summary

Problem Set 1.2 was focused on teaching the class about the Euclidean Algorithm. This algorithm is a general procedure that can be used to find the greatest common divisor of two integers. After we established the proof behind the Euclidean Algorithm, we then used our new found knowledge to further our understanding of greatest common divisors and what they actually represent. First, in Theorem 1.6 and Theorem 1.7 we found that there is more than one way to express that the greatest common divisor of two integers is 1. Theorem 1.8 quickly confirmed that fact and provided us with our first if and only if statement of the problem set. Theorems 1.11 and 1.12 delved into the topic of what a greatest common divisor actually divides, and provided us with much needed information that will help with our future proof writings. Lastly, Theorem 1.13 had us explore how to solve the linear diophantine equation and explained what possible forms the solutions may take.