

Math 311 Fall 2009 Homework 4 due October 13.

1. Prove the following:

(a) If $\gcd(a, b) = 1$ and $\gcd(a, c) = 1$, then $\gcd(a, bc) = 1$.

(b) If $\gcd(a, b) = 1$ and $a|c$ and $b|c$ then $ab|c$.

2. Problem 1 on page 67.

3. Problem 3 on page 67.

4. Problem 5 on page 67.

5. Problem 9 on page 74.