

Math 311 Homework 2 Fall 09 due September 8

1. Find the greatest common divisor of 39,744 and 20,125. Then express the gcd in the form $39,744x + 20,125y$. Show all your work.
2. Number 7 on page 25.
3. Let a and b be non-zero integers. Show that the equation $ax + by = d$ has integer solutions for x and y if and only if the $gcd(a, b)$ divides d .
4. Number 18 on page 25.
5. Number 6 on page 31.