

## MATH 187 – Section 002 – Quiz 8

You may work with other class members on this quiz, but you may *not* receive assistance from people not in MATH 187, Section 002. You must show all of your work to receive full credit. Do all your work on other sheets of paper and be sure to staple all the pieces of paper together or **YOU WILL GET A 'ZERO' ON THE QUIZ**. Your work on this quiz must be handed in by the beginning of class on Friday, 18 March 2008. **GOOD LUCK!**

- 1) Find the greatest common divisor of 110250 and 23625 using Euclid's algorithm. Then find integers  $x$  and  $y$  such that

$$\gcd(110250, 23625) = 110250x + 23625y.$$

- 2) Do Exercise 13 in Section 35.
- 3) In this Exercise 2 (Exercise 35.13), we required that  $a$  and  $b$  were relatively prime. Show that this requirement is necessary by producing an example where  $a|c$  and  $b|c$ , yet  $(ab) \nmid c$ .
- 4) When we worked the proof of Theorem 35.6, we chose not to do part (2), in which we must show that  $d|b$ . Prove this now.