CSE 321: Discrete Structures
Assignment #3
October 18, 2001
Due: Wednesday, October 24

Reading Assignment: Read Sections 3.1-3.2 and 4.1-4.2.

Problems:

1. Section 2.3, exercise 10, parts b,e,f.

2. Section 2.3, exercise 18.

3. Section 2.3, exercise 38.

4. Use Euclid's algorithm to compute the following, showing the values of x and y for each iteration of the algorithm.

    (a) gcd(1020, 1173).
    (b) gcd(1019, 1173).

5. Section 3.1, exercise 4.

6. Section 3.1, exercise 6.

7. Section 3.1, exercise 10.

8. **Extra Credit:**

    Section 2.3, exercise 12. Justify your answer. The function n! is defined on page 85. (Hint: Think about the unique factorization of 100! into primes. How does this factorization determine the number of zeros at the end of the decimal representation of 100! ?)