CSE 321: Discrete Structures
Assignment #3
January 17, 2001
Due: Wednesday, January 24

Reading Assignment: Rosen, Sections 2.3-2.5, 3.1

Problems:

1. Section 1.6, exercise 6, parts a, f, g and h.
2. Section 1.6, exercise 12.
3. Section 1.6, exercise 20.
4. Section 2.3, exercise 10, parts b, e, f.
5. Section 2.3, exercise 18.
6. Section 2.3, exercise 38.
7. 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).
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! ?)