MA 130 SECTION 4.4 COMMON FACTORS AND MULTIPLES **HOMEWORK: 1 – 41 ODD**

OBJECTIVES: Use several methods for finding the GCF and LCM of two (or more) counting numbers.

1. The **Greatest Common Factor (GCF)** of counting numbers is the largest number that is a factor of both numbers.

2. The Factor-List method for finding the GCF.

   Compute the GCF of 45 and 130

3. The Prime-Factorization Method

   Compute the GCF of 45 and 130

4. Relatively prime numbers and two counting numbers which have no factors in common other than 1. A and B are relatively prime if and only if GCF(A,B) = 1.

   Note: A and B do not have to be prime numbers to be relatively prime to each other.

   Which of the following pairs of numbers re relatively prime?

   A. 28 and 33 B. 14 and 15

   C. 108 and 333

5. The Least Common Multiple (LCM) of two counting numbers is the smallest number that is a multiple of both numbers.

6. The Multiple-List method for finding the LCM.

   Compute the LCM of 14 and 20

7. The Prime-Factorization Method for finding the LCM.

   Compute the LCM of 14 and 20

8. MN is a common multiple of M and N for all counting numbers M and N.

9. If you know that M and N are relatively prime, what can you say about the LCM(M, N)?