**7-1 Factors and Greatest Common Factors**

**Objectives**: Write the prime factorization of numbers. Find the GCF of monomials.

**Prime factorization**: A representation of a number or a polynomial as a product of primes.

**Greatest common factor (GCF)**: The largest common factor of two or more given numbers.

**Example 1**: Write the prime factorization of 98.

**Example 2**: Find the GCF of each pair of numbers.

1. 100 and 60
2. 26 and 52

**Example 3**: Find the GCF of each pair of monomials.

1. 15x3 and 9x2
2. 8x2 and 7y3

**Activity**

A cafeteria has 18 chocolate-milk cartons and 24 regular-milk cartons. The cook wants to arrange the cartons with the same number of cartons in each row. Chocolate and regular mild will not be in the same row. How many rows will there be if the cook puts the greatest possible number of cartons in each row?

You have 6 cookies and cream Hershey’s kisses and 9 original Hershey’s kisses. You need to arrange the kisses with the same number of kisses in each row. What is the greatest possible number of rows that you can make if each row only contains original kisses or cookies and cream kisses?