

## Reteaching Page

**4.3 Finding the Greatest Common Factor**

The greatest common factor (GCF) is the largest number that is a factor of any 2 or more numbers. You can find GCF using **factoring** or with a **prime factorization** method.

**Factoring**

1. List all of the factors for each number in the data set.
2. Find the largest factor that is common to all of the members of the data set.

To find the GCF of 16, 20 and 24 you will list all of the factors of each.

16: 1, 2, 4, 8, 16

20: 1, 2, 4, 5, 10, 20

24: 1, 2, 3, 4, 6, 8, 12, 24

The common factors are 1, 2, and 4. The **GCF** is 4

**Find the GCF for each data set below.**

14, 35

24, 36

8, 20, 32

14: \_\_\_\_\_

24: \_\_\_\_\_

8: \_\_\_\_\_

35: \_\_\_\_\_

36: \_\_\_\_\_

20: \_\_\_\_\_

Common \_\_\_\_\_

Common \_\_\_\_\_

32: \_\_\_\_\_

**GCF** \_\_\_\_\_

**GCF** \_\_\_\_\_

Common \_\_\_\_\_

**GCF** \_\_\_\_\_

**Prime Factorization**

1. List each member as a product of prime factors.
2. Circle the common factors.
3. Multiply the common factors.

To find the GCF of 12, 30, 54, you will list the prime factors for each.

12:  $3 * 2 * 2$

30:  $5 * 3 * 2$

54:  $3 * 3 * 2 * 2$

The common factors are 3 and 2. The **GCF** is 6. ( $3*2$ )

**Use Prime Factorization to find the GCF of the following.**

24, 32

16, 26

10, 24, 50

24: \_\_\_\_\_

16: \_\_\_\_\_

10: \_\_\_\_\_

32: \_\_\_\_\_

26: \_\_\_\_\_

24: \_\_\_\_\_

Common \_\_\_\_\_

Common \_\_\_\_\_

50: \_\_\_\_\_

**GCF** \_\_\_\_\_

**GCF** \_\_\_\_\_

Common \_\_\_\_\_

**GCF** \_\_\_\_\_

Don't forget to **multiply** the common prime factors!