

Greatest Common Factor Notes 11-20-2009

The **greatest common factor** of two numbers is the largest factor the numbers share or have in common. To find the greatest common factor for 36 and 45, follow these steps.

Step 1: Make a list of the factors for each number.

36	45
1 • 36	1 • 45
2 • 18	3 • 15
3 • 12	5 • 9
4 • 9	
6 • 6	

Step 2: Put the factors in order from smallest to largest.

36: **1, 2, 3, 4, 6, 9, 12, 18, 36**
45: **1, 3, 5, 9, 15, 45**

Step 3: Find the common factors for both numbers.

1, 3, and 9

Step 4: Find the greatest common factor for both numbers.

9

Answer each question.

1. What are the factors for 18? _____
2. Put them in order from least to greatest. _____
3. What are the factors for 21? _____
4. Put them in order from least to greatest. _____
5. Compare your answers for Exercise 2 and Exercise 4.
What is the greatest common factor? _____