Greatest Common Factor Part 1

The **greatest common factor** (GCF) is the largest factor that divides two numbers.

EXAMPLE: **Find the greatest common factor of 6 and 10.**

Step 1	Step 2	ANSWER
Find the prime factors of each number. 6 = 2 × 3 10 = 2 × 5	Find the common prime factors that 6 and 10 have. 6 = 2 × 3 10 = 2 × 5	The great common factor of 6 and 10 is ②

PART 1. Circle the common factors of the pair of numbers, then answer the questions.

EXAMPLE 4 = ②× 2 6 = ②× 3 The common prime factor is ___2___ . The greatest common factor (GCF) is ___2___ .	6 = 2 × 3 9 = 3 × 3 The common prime factor is _____ . The greatest common factor (GCF) is _____ .
10 = 2 × 5 12 = 2 × 2 × 3 The common prime factor is _____ . The greatest common factor (GCF) is _____ .	14 = 2 × 7 35 = 5 × 7 The common prime factor is _____ . The greatest common factor (GCF) is _____ .

PART 2. Greatest common factor can also be found by multiplying all the common prime factors.

EXAMPLE 18 = ②× 3 × ③ 12 = ②× 2 × ③ The common prime factors are ___2 and 3___ . The greatest common factor (GCF) is ___2 × 3 = 6___ .	20 = 2 × 2 × 5 30 = 2 × 3 × 5 The common prime factors are _____ . The greatest common factor (GCF) is _____ .