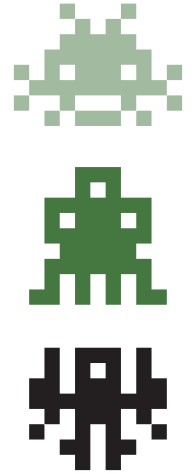


Greatest Common Factor Part 2

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

EXAMPLE: Find the greatest common factor of 24 and 18.

Step 1	Step 2	ANSWER
Find the prime factors of each number. $24 = \begin{array}{c} 6 \times 4 \\ \swarrow \quad \searrow \\ 2 \times 3 \times 2 \times 2 \end{array}$ $18 = \begin{array}{c} 6 \times 3 \\ \swarrow \quad \searrow \\ 2 \times 3 \times 3 \end{array}$	Find the common prime factors of 24 and 18. $24 = 2 \times 3 \times 2 \times 2$ $18 = 2 \times 3 \times 3$	The common prime factors of 24 and 18 are 2 and 3. The greatest common factor can be found by multiplying all the common prime factors. Therefore, the greatest common factor of 24 and 18 is $2 \times 3 = 6$.



Directions: Find the greatest common factor of the numbers below.

$$30 = 3 \times 2 \times 5$$

$$45 = 3 \times 3 \times 5$$

The common prime factors are **3 and 5**. The greatest common factor (GCF) is **15**.

$$36 = 3 \times 2 \times 2 \times 3$$

$$42 = 7 \times 2 \times 3$$

The common prime factors are **2 and 3**. The greatest common factor (GCF) is **6**.

$$120 = 2 \times 2 \times 3 \times 5 \times 2$$

$$100 = 2 \times 5 \times 2 \times 5$$

The common prime factors are **2, 2, 5**. The greatest common factor (GCF) is **20**.