

Name: Class:

Greatest common factor

Find the greatest common factors of the numbers below.

Example : Find the greatest common factor of 72 and 24.

1. Find the prime factors of each number.

$$72 = 2 \times 2 \times 2 \times 3 \times 3$$

$$24 = 2 \times 2 \times 2 \times 3$$

2. Find and circle the prime factors that the numbers have in common.

$$72 = 2 \times 2 \times 2 \times 3 \times 3$$

$$24 = 2 \times 2 \times 2 \times 3$$

3. **The greatest common factor** of the numbers can be found by multiplying their common prime factors together. $2 \times 2 \times 2 \times 3 = 24$ So, the GCF of 72 and 24 is **24**.

The GCF of 18 and 90 is

The GCF of 14, 98 and 35 is

The GCF of 54 and 16 is

The GCF of 19, 38 and 95 is

The GCF of 45 and 5 is

The GCF of 10, 75 and 100 is

The GCF of 30 and 40 is

The GCF of 26, 78 and 52 is

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3. The **greatest common factor** of the numbers can be found by multiplying their common prime factors together. $2 \times 2 \times 2 \times 3 = 24$ So, the GCF of 72 and 24 is **24**.

The GCF of 18 and 90 is

18

$$18 = 2 \times 3 \times 3$$

$$90 = 2 \times 3 \times 3 \times 5$$

The GCF of 14, 98 and 35 is

7

$$14 = 2 \times 7$$

$$98 = 2 \times 7 \times 7$$

$$35 = 5 \times 7$$

The GCF of 54 and 16 is

2

$$54 = 2 \times 3 \times 3 \times 3$$

$$16 = 2 \times 2 \times 2 \times 2$$

The GCF of 19, 38 and 95 is

19

$$19 = 19$$

$$38 = 2 \times 19$$

$$95 = 5 \times 19$$

The GCF of 45 and 5 is

5

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

$$5 = 5$$

The GCF of 10, 75 and 100 is

5

$$10 = 2 \times 5$$

$$75 = 5 \times 5 \times 3$$

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

The GCF of 30 and 40 is

10

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

$$40 = 2 \times 2 \times 2 \times 5$$

The GCF of 26, 78 and 52 is

26

$$26 = 2 \times 13$$

$$78 = 2 \times 3 \times 13$$

$$52 = 2 \times 2 \times 13$$