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 commom

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

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

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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Solution

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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 x 2 x 2 x 3 x 3
24 = 2 x 2 x 2 x 3

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

72 = (2) x (2) x (2) x (3) x 3
24 = (2) x (2) x (2) x (3)

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

The GCF of 18 and 90 is

18

18 = 2 x 3 x 3
90 = 2 x 3 x 3 x 5

The GCF of 14, 98 and 35 is

7

14 = 2 x 7
98 = 2 x 7 x 7
35 = 5 x 7

The GCF of 54 and 16 is

2

54 = 2 x 3 x 3 x 3
16 = 2 x 2 x 2 x 2

The GCF of 19, 38 and 95 is

19

19 = 19
38 = 2 x 19
95 = 5 x 19

The GCF of 45 and 5 is

5

45 = 3 x 3 x 5
5 = 5

The GCF of 10, 75 and 100 is

5

10 = 2 x 5
75 = 5 x 5 x 5
100 = 2 x 2 x 5 x 5

The GCF of 30 and 40 is

10

30 = 2 x 3 x 5
40 = 2 x 2 x 2 x 5

The GCF of 26, 78 and 52 is

26

26 = 2 x 13
78 = 2 x 3 x 13
52 = 2 x 2 x 13

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