

Examples: Find the GCF

1. 52: 1, 2, 4, 13, 26, 52  
3: 1, 3

2. 48:  
14:

3. 15:  
25:

4. 35:  
10:  
60:

# Greatest Common Factor

7-17

**Prime:** whole number with exactly 2 factors: 1 and itself

Ex:

**Composite:** whole number with more than 2 factors

Ex:

## Greatest Common Factor

15: 1, 3, 5, 15

30: 1, 2, 3, 5, 6, 10, 15, 30

GCF: 15

The Greatest (GCF)

Common Factor #s is:

of 2 or more  
the largest factor  
shared by all the #s

**Factors:** values that fit in to a # evenly

Factors of 12:  
1, 2, 3, 4, 6, 12

**Multiples:** The result of multiplying a number by an integer.

Multiples of 12:

## Example:

### Simplifying Fra

- Find the GCF
- Divide num

24: 1, 2, 3, 4, 6, 8, 12, 24

55: 1, 5, 11, 55

denominator

GCF: 1

5, 10

3, 4, 6, 12

GCF = 2

$$\frac{10 \div 2}{12 \div 2} = \frac{5}{6}$$

GCF = 2

$$\frac{12 \div 2}{26 \div 2} = \frac{6}{13}$$

12: 1, 2, 3, 4, 6, 12

26: 1, 2, 13, 26

GCF = 18

$$\frac{18 \div 18}{36 \div 18} = \frac{1}{2}$$

18: 1, 2, 3, 6, 9, 18

36: 1, 2, 3, 4, 6, 9, 12, 18, 36

## Greatest Common Factor

9-27-17



### Simplifying Fractions

- Find the GCF of the numerator & denominator
- Divide num. and den. by the GCF

$$\text{GCF} = 2 \quad \frac{10 \div 2}{12 \div 2} = \frac{5}{6}$$

$$10: 1, 2, 5, 10$$
$$12: 1, 2, 3, 4, 6, 12$$

$$\text{GCF} = 2 \quad \frac{12 \div 2}{26 \div 2} = \frac{6}{13}$$

$$12: 1, 2, 3, 4, 6, 12$$
$$26: 1, 2, 13, 26$$

$$\text{GCF} = 18 \quad \frac{18 \div 18}{36 \div 18} = \frac{1}{2}$$

$$18: 1, 2, 3, 6, 9, 18$$
$$36: 1, 2, 3, 4, 6, 9, 12, 18, 36$$