

Vocabulary

What does it mean to be the greatest common factor? **GCF**
The biggest factor that 2 or more numbers have in common.

What does the least common multiple mean? **LCM**
The smallest multiple that 2 or more numbers have in common.

Why do we need to know how to find the GCF and LCM for fractions?

- GCF - reduce and simplify fractions.
- LCM - finding common denominators.

Greatest Common Factor (GCF) *List all factors, then find the biggest one.

Find the greatest common factor for the number listed.

1) 24

60

24 → 1, 2, 3, 4, 6, 8, 12, 24
 60 → 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60
 GCF = 12

2) 21x

42x²y

21 → 1, 3, 7, 21, x
 42 → 1, 2, 3, 6, 7, 14, 21, 42, x, x, y
 GCF = 21x

3) 54

89

4) 39x³y

50x²y²

What does it mean if two numbers are Relatively Prime?

When the GCF is 1

text
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Least Common Multiple (LCM) List the multiples, then find the smallest one.

Find the least common multiple of the numbers listed.

1) 16

24

$$16 \rightarrow 16, 32, 48, 64, 80, \dots$$

$$24 \rightarrow 24, 48, 72, \dots$$

$$\text{LCM} = 48$$

2) $15x^2$

$27x$

$$15x^2 \rightarrow 3 \cdot 5 \cdot x \cdot x$$

$$27x \rightarrow 3 \cdot 3 \cdot 3 \cdot x$$

$$\text{LCM} = 3 \cdot x \cdot 3 \cdot 3 \cdot 5 \cdot x$$
$$135x^2$$

3) 20

25

4) $6m^2$

$10m^3$

Least Common Denominator

1) $\frac{5}{6}$ and $\frac{7}{9}$

2) $\frac{7}{12}$ and $\frac{11}{15}$

Extra Practice: Candle and Dog Worksheet

Modified: Candle Worksheet #1-10 and Dog Worksheet #2 - 8 (evens), 20, 22