

Least Common Multiple

Warmup

1. What is the GCF of 64 and 16?

2. What is the prime factorization of 56?

3. What are the multiples of 8 from 8 to 80?

4. Write $\frac{12}{18}$ in simplest form.

5. $\frac{15}{20} - \frac{12}{20} = \underline{\hspace{2cm}}$

Least Common Multiple

- I. Least Common Multiple
- II. Calculating the LCM for a Pair of Number
- III. GCF and LCM

Homeschool



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Pre-Algebra and Geometry I

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I. Least Common Multiple

Least Common Multiple:

The least common multiple of two or more numbers is the smallest number that is a multiple of each of the numbers.

Find the Least Common Multiple of 5 and 7.

Write the multiples of each number:

5: 5, 10, 15, 20, 25, 30, 35, 40,...

7: 7, 14, 21, 28, 35

The first (smallest) number that is a multiple of both is the LCM.

The LCM of 5 and 7 is 35

6. LCM means L _____ C _____ M _____

7. Write the word for each definition:

_____ : numbers that multiply to give a product.

_____ : The largest number that is a factor of each number.

_____ : The smallest number that is a multiple of each number.

_____ : The product of a number and a whole number.

8. Write the word for each definition:

The factors of 8 are _____

The multiples of 8 are _____

The prime factorization of 8 is _____

II. Calculating the LCM for a Pair of Number

What is the LCM of 3 and 10?

1. What are the multiples of 3? _____
2. What are the multiples of 10? _____
3. What is the smallest (least) number that is a multiple of both 3 and 10 (common)? _____

10. What is the LCM of 9 and 4?

1. What are the multiples of 9? _____
2. What are the multiples of 4? _____
3. What is the LCM of 9 and 4 ? _____

12. What is the least common multiple of 5 and 7?

13.

14. What is the least common multiple of 8 and 9?

15.

III. GCF and LCM

Review from Lesson 29

Reduce using the GCF

$$\frac{24}{40} = \underline{\hspace{1cm}} = \text{---}$$

16. Reduce using the GCF

$$\frac{12}{28} = \underline{\hspace{1cm}} = \text{---}$$

**Greatest Common
Factor is
used for reducing
fractions**

Preview of Lesson 42

**Least Common Multiple is
used for finding Common
Denominators to add fractions.**

Write the fractions with the same denominator

The LCM of 2 and 8 is _____

$$\frac{1}{2} = \underline{\hspace{1cm}} = \frac{\hspace{1cm}}{8}$$

$$\frac{3}{8} = \underline{\hspace{1cm}} = \frac{\hspace{1cm}}{8}$$

$$\frac{1}{2} + \frac{3}{8} = \text{---}$$

17. What is the GCF of 4 and 8?

18. What is the LCM of 4 and 8?