Lesson # 34

Least Common Multiple

Date

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. $\frac{15}{20} - \frac{12}{20} =$ ____

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 ?_____

11.

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

$$\frac{24}{40} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

16. Reduce using the GCF

$$\frac{12}{28} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

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 _____

$$\frac{1}{2} = \frac{\quad}{\quad} = \frac{\quad}{8}$$

$$\frac{3}{8} = \frac{\quad}{\quad} = \frac{\quad}{8}$$

$$\frac{1}{2} + \frac{3}{8} = \frac{\quad}{\quad}$$

17. What is the GCF of 4 and 8?

18. What is the LCM of 4 and 8?

IV. Practice

19	20
21	22
23	24
25	26
27	28