Republic of the Philippines

**Department of Education**

Region V (Bicol)

DIVISION OF CATANDUANES

Virac, Catanduanes

Lesson Plan in Mathematics

**Mathematics V**

**Lesson 12: Finding The Common Multiples and LCM of 2-4**

**Numbers Using Continuous Division M5NS-Id-69.2**

**I. Objective:**

* Finds the common multiple and least common multiple of a set of 2-4 numbers using continuous division.
* Value Focus: Respect for Others
* Prerequisite Skills

Multiples

Prime numbers

Division

 References:Grade 5 Curriculum Guide in Mathematics

**Materials**: flashcards, paper, ruler

**III. Learning Activities:**

**A. Preparatory Activities:**

***1. Drill:***

***Game:***

***Tic- Tac- Toe Division***

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |

1. ***Group the class into 2.***
2. ***The group will choose a symbol that can be used for playing.***
3. ***The teacher will read the question.***
4. ***The group who gives the correct answer will be given the chance to draw his or her symbol in the tic-tac-toe grid.***
5. ***The group first complete3 cells in a row (diagonal, horizontal, or vertical) wins.***

***2. Review:***

***Put a check under a number at the top if the number at the left is a multiple of it.***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | ***4***  | ***5*** | ***6*** | ***7*** | ***8*** | ***9*** | ***10*** |
| ***96*** |  |  |  |  |  |  |  |
| ***100*** |  |  |  |  |  |  |  |
| ***84*** |  |  |  |  |  |  |  |
| ***72*** |  |  |  |  |  |  |  |
| ***60*** |  |  |  |  |  |  |  |

**B. Developmental Activities:**

1. ***Motivation:***

Have a game on grouping the pupils according to \_\_\_\_\_\_\_\_\_\_\_\_\_.***You may consider the grouping according to height, age, favorite color, fruits, food, etc. At the command “Group yourselves according to \_\_\_\_\_\_\_\_\_\_\_\_\_\_ the pupils will go to the respective groupings.***

 ***What have you realized after thegame?***

 ***Lead a discussion on individual differences and commonalities of children.***

 ***Elicit the value of respect for others.***

***Say: “Like all of us, numbers also have commonalities. Let’s see what these are.”***

***B. Developmental Activities***

1. ***Presentation***
2. Present the picture problem.

**100 calories**

**per 8 oz of**

 **Pearbrand milk**

**150 calories Per**

**8 oz of**

**Mido milk**

Jess always drinks 8 oz of Mido milk, while Alex always drinks 8 0z of pear brand milk. What is the least number of glasses they could drink everyday to make sure that they get the same amount of calories from milk daily?

1. Asks:

 How many calories from milk will each one get for every 8 oz of milk drank?

1. Performing the Activities

Let the pupils make a list by filling in the table.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | 1 | 2 | 3 | 4 |
| Jess | 0 | 150 | 300 | 450 | 600 |
| Alex | 0 | 100 | 200 | 300 | 400 |
|  |  |  |  |  |  |

3.Processing the Activity

Let a pupil present his/her work.

Ask:

 What is the least number of calories they could take so that they have the same amount?

 How many glasses of milk should jess drink to get 300 calories/ how about Alex?

 What are the multiples of 150 and 100.

 What is the common multiple of 150 and 100.

 Introduce the term least common multiple or LCM as the smallest multiple common to 2 numbers?

 One way is using continuous division.

4.Reinforcing the Concept and Skill

One way to find out the least common multiple is continuous division.

Examples:

Find out the LCM of 16 and 20.

 2 16 20 Write the numbers horizontally and find a prime

 2 8 10 number that will divide the numbers if possible.

 2 4 5

22 5 Divide by the prime number and write the

 5 1 5 quotient below the dividends. Copy any

 11numbersnot divided below thedividend.

 Continue the process until the quotients are 1

 Multiply all the prime numbers and the last set

of quotients to get the LCM.

LCM = 2x2x2x2x5

 = 80

Find the LCM of 24, 30, and 42

 2 24 30 42

 3 12 15 21

2 4 5 7

 2 2 5 7

 5 1 5 7

 7 1 1 7

 1 1 1

LCM = 2 x 3 x 2 x 2 x 5 x 7

= 840

Group work:

Group the pupils into 5 groups.

Find the LCM of the following set of numbers using continuous division.

1. 6, 10, 12, 18
2. 3, 9, 36, 72,
3. 10, 20, 30, 60
4. 5, 10, 15, 30
5. 4, 12, 24, 36

Group reporting.

5. Summarizing the Lesson:

 Steps on finding the LCM using continuous division.

1. Write the numbers horizontally and find a primenumber that will divide the numbers if possible.
2. Divide by the prime number and write the quotient below the dividends.
3. Copy anynumbers not divided below the dividend.
4. Continue the process until the quotients are 1
5. Multiply all the prime numbers and the last set of quotients to get the LCM.
6. Applying new to other situations

 Solve.

1. Kim works every 6 days while Susan works every 8 days. If they start working on a Monday,When will they work together again?
2. Three cyclist Ken,Kyle and kim start at the same spot. Ken can complete a whole round in 50 minutes. Kyle in 48 minutes and Kim in 36 minutes. If they all at 3’o clock in the afternoon,at what time will they be on the same spot again?

**C. Assessment**

 Give the least common multiple for each pair of numbers:

 1. 6, 15, 20 and 30

 2. 12, 24, 36, and 60

 3. 12, 18, 32,and 72

 4. 6, 9 15 and 36

 5. 10, 15, 25, and 50

**D. Home Activity**

1. **Remediation**

 Find the LCM of these set of numbers.

 1. 8, 12, 30 4. 4, 10, 8

 2. 12, 20, 45 5. 9, 12, 18

1. **Enrichment**

Solve:

Tony cleans the hall every 5 days Martin cleans the same every 4 days. They worked together on June 4, when will they work together again?

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