CLASS: 5

SUBJECT: MATHEMATICS (assignment 14)

Please solve these sums in the math's copy (no need of copying the steps)

To Find Lowest Common Multiple by using Division Method

To find Least Common Multiple by using Division Method we need to follow the following steps.

Step 1: Write the given numbers in a horizontal line, separating them by commas.

Step 2: Divide them by a suitable prime number, which exactly divides at least two of the given numbers.

Step 3: We put the quotient directly under the numbers in the next row. If the number is not divided exactly, we bring it down in the next row.

Step 4: We continue the process of step 2 and step 3 until all co-prime numbers are left in the last row.

Step 5: We multiply all the prime numbers by which we have divided and the co-prime numbers left in the last row. This product is the least common multiple of the given numbers.

For example 1:

Find the least common multiple (LCM) of 20 and 30 by the Division Method.

Solution:

2	20, 30
2	10, 15
5	5, 15
3	1, 3
	1, 1

Least common multiple (LCM) of 20 and 30 = 2 X 2 X 5 X 3 = 60

For example 2: Find the least common multiple (LCM) of 18, 24 and 60 by the Division Method

Solution:

2	18, 24, 60
2	9, 12, 30
3	9, 6, 15
3	3, 2, 5
2	1, 2, 5
5	1, 1, 5
	1, 1, 1

Least common multiple (LCM) of 18, 24 and 60 = 2 X 2 X 3 X 3 X 2 X 5 = 360

Find lowest common multiple of the following numbers:

(i) 16, 24, 40

(ii) 40, 56, 60

(iii) 120, 150, 135

(iv) 72, 96, 120

Answers for the lowest common multiple (L.C.M.) are given below.

ANSWERS

i**) 240**

(ii) 840

(iii) 5400

(iv) 1440