

**CLASS: 5**

**SUBJECT: MATHEMATICS (Assignment 13)**

**Do the problems given below in the Math copy. (Answers are provided at the end)**

### MULTIPLES

When you think of multiples think mathematical tables. Multiples of a given number are all those numbers which can be completely divided (remainder=0) by the given number.

For example

Multiples of 3=3,6,9,12,15, and so forth which are completely divisible by 3

Multiples of 5=5,10,15,20,25, and so forth which are completely divisible by 5

Multiples of 10=10,20,30,40,50, and so forth which are completely divisible by 10

Multiples of 15=15,30,45,60,75, and so forth which are completely divisible by 15

### COMMON MULTIPLES

Common multiples of two or more given numbers are those which can be divided completely by all the given numbers.

Example 1: Find the first five common multiples of 4 and 6.

Step 1: Write the multiples of both the numbers as required

Multiples of 4=4,8,12,16,20,24,28,32,36,40,44,48,52,56,60.....etc

Multiples of 6=6,12,18,24,30,36,42,48,54,60.....etc

Step 2: List the common multiples of 4 and 6

First five common multiples of 4 and 6=12, 24, 36, 48, 60

Example 2: Find the first three common multiples of 5, 10 and 15

Step 1: Write the multiples of all the three numbers as required

Multiples of 5=5,10,15,20,25,30,35,40,45,50,55,60,65,70,75,80,85,90,.....etc

Multiples of 10=10,20,30,40,50,60,70,80,90,100,.....etc

Multiples of 15=15,30,45,60,75,90,105,120,135,150,.....etc

Step 2: List the common multiples of 5, 10 and 15

First three common multiples of 5, 10 and 15= 30, 60, 90

## LOWEST COMMON MULTIPLE (LCM)

The smallest number which can be divided by all the given numbers.

*To find the LCM by listing multiples follow the steps below*

Example 1: Find the LCM of 2,3 and 4

Step 1: List the multiples of all the given numbers

Multiples of 2= 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, ..... etc.

Multiples of 3= 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, ..... etc.

Multiples of 4= 4, 8, 12, 16, 20, 24, 28, 32, 36, ..... etc.

Step 2: List the common multiples of all the given numbers

Common multiples of 2, 3 and 4=12, 24, 36, ..... etc.

Step 3: The smallest number among the common multiples is the LCM.

LCM of 2, 3 and 4= 12.

### **Questions**

1. Find the LCM of the following numbers by listing multiples as shown above.
  - i) 4 and 10
  - ii) 6 and 9
  - iii) 8 and 12
  - iv) 5 and 15
  - v) 8 and 14
  - vi) 16 and 32
  - vii) 10 and 25
  - viii) 3,12 and 36
  - ix) 4,6 and 48
  - x) 7,9 and 21

<b>Answer key</b>	
1.	
i. 20	ii. 18
iii. 24	iv. 15
v. 56	vi. 32
vii. 50	viii. 36
ix. 48	x. 63