

ASSIGNMENT – 20

STD IV

MATHEMATICS

CHAPTER 7

L.C.M AND H.C.F

Do the following assignment in your Maths copy.

1. Find out the LCM of the following numbers by listing the common multiples.

Eg: 6 , 10

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

Multiples of 10 = 10, 20, 30, 40, 50, 60, 70,....

Common multiples of 6 and 10 = 30, 60,

LCM of 6 and 10 = 30

a) 5 , 8

b) 12 , 15

c) 12 , 18 , 24

2. Find out the L.C.M of the following numbers by prime factor method:

Eg. 40 , 60 , 80

| | |
|---|----|
| 2 | 40 |
| | |
| 2 | 20 |
| | |
| 2 | 10 |
| | |
| 5 | 5 |
| | |
| | 1 |

| | |
|---|----|
| 2 | 60 |
| | |
| 2 | 30 |
| | |
| 3 | 15 |
| | |
| 5 | 5 |
| | |
| | 1 |

| | |
|---|----|
| 2 | 80 |
| | |
| 2 | 40 |
| | |
| 2 | 20 |
| | |
| 2 | 10 |
| | |
| 5 | 5 |
| | |
| | 1 |

$$40 = 2 \times 2 \times 2 \times 5 = 2^3 \times 5$$

$$60 = 2 \times 2 \times 3 \times 5 = 2^2 \times 3 \times 5$$

$$80 = 2 \times 2 \times 2 \times 2 \times 5 = 2^4 \times 5$$

$$\begin{aligned} \text{L.C.M of 40, 60 and 80} &= 2 \times 2 \times 2 \times 2 \times 3 \times 5 \\ &= 240 \end{aligned}$$

a) 24 , 56

b) 48 , 72 , 80

c) 75 , 120 , 150