Subject MATHS   **01.07.2020**

Class 5

Lesson:6 D Relation between HCF and LCM

Dear students, in previous class you got some formula of LCM and HCF.

Q1. The LCM and HCF of two numbers are 95 and 29,respectively. If one number is 145,find the other.

Solution:- we know that LCM ×HCF =other number ×one number

= 95×29=other number ×145

=other number =95×29÷145

 =19

Q2.Find the greatest 6-digit number exactly divisible by 9,15,24and 36.

Solution:

Example - 2 Find the greatest 6-digit number exactly divisible by 9, 15, 24 and 36.

Solution : The number exactly divisible by 9, 15, 24 and 36 must be exactly divisible by their L.C.M. also.

So, L.C.M. of 9, 15, 24 and 36 = 2 × 2 × 3 × 3 × 5 × 2 = 360

Now, the greatest number of 6 digits = 9,99,999.

Let us check whether this number is exactly divisible by the L.C.M.

When 9,99,999 is divided by 360, the remainder = 279.

So, 9,99,999 is not exactly divisible by 360.

Thus, the greatest 6-digit divisible by 360.

Thus, the greatest 6-digit number exactly divisible by 9, 15, 24 and 36 = 9,99,999 − 279 = 9,99,720

2	9, 15, 24, 36
2	9, 15, 12, 18
3	9, 15, 6, 9
3	3, 5, 2, 3
	1, 5, 2, 1

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            2 7 7 7
    360 ) 9 9 9 9 9 9
         − 7 2 0 ↓
           2 7 9 9
         − 2 5 2 0 ↓
             2 7 9 9
           − 2 5 2 0 ↓
               2 7 9 9
             − 2 5 2 0
                 2 7 9
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Example - 3 Find the smallest 5-digit number which when divided by 4, 7, 12 and 84 leaves no remainder.

- **Find the HCF of two numbers is 12 and their product is 2160. Find the LCM.**
- **The LCM of of two prime numbers is 221. if one number is 17. find the other number. (Hints: HCF of two prime numbers is 1)**
- **The HCF of 276 and 1246 is 138. Find their LCM**
- **The product of two numbers is 864. if their LCM is 72 what is their LCM?**
- **The HCF of two numbers is 145 and their LCM is 2175. if one number is 435. Find the other number.**
   1. **Find the LCM.**

- **55,45,65**
- **100,200,300**
- **21,63,84**
- **56,112,84**
- **66,55 11**

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