How do we Find the HCF and LCM of 2 numbers? Part 2

Table of Contents

In the previous segment, we saw the **HCF and LCM of 2 numbers.** In this segment, let us continue the same.

How to Find the HCF and LCM of two numbers?

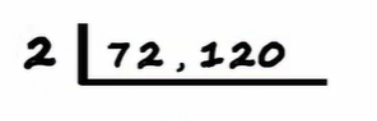
Q. Find the HCF and LCM of 72 and 120.

Solution:

Use the Common Division Method for finding the HCF and LCM of 72 and 120.

Step 1: Write numbers and their common factor to their left.

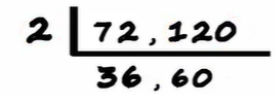
Write 72 and 120. The common factor of 72 and 120 is 2.



Step 1

Step 2: Write the quotients underneath.

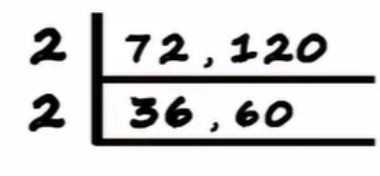
The quotient here is 36 and 60 for 72 and 120 respectively.



Step 2

Step 3: Write their common factors to the left.

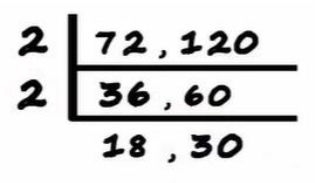
As 36 and 60 are not coprime numbers, find their common factor which is 2.



Step 3

Step 4: Write the quotients underneath.

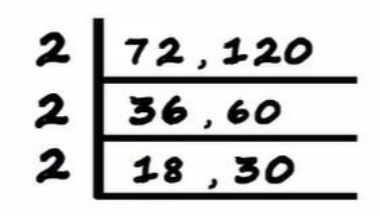
The quotient is 18 and 30 for 36 and 60 respectively.



Step 4

Step 5: Write their common factors to the left.

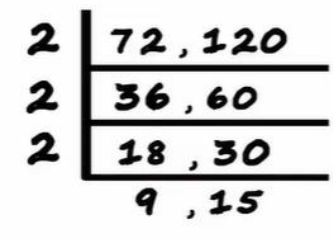
As 18 and 30 are not coprime numbers, find their common factor which is 2.



Step 5

Step 6: Write the quotients underneath.

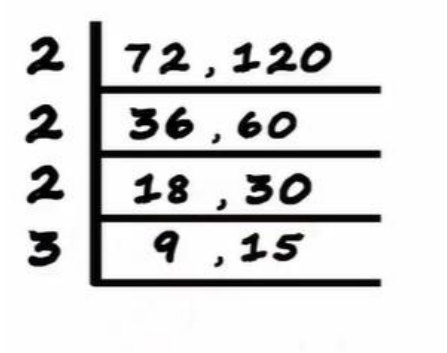
The quotient here is 9 and 15 for 18 and 30 respectively.



Step 6

Step 7: Write their common factors to the left.

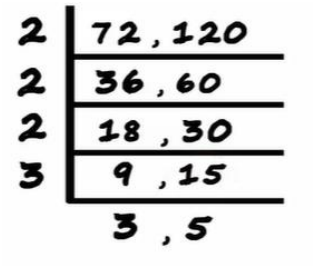
As 9 and 15 are not coprime numbers, find their common factor which is 3.



Step 7

Step 8: Write the quotients underneath.

The quotient here is 3 and 5 for 9 and 15 respectively.

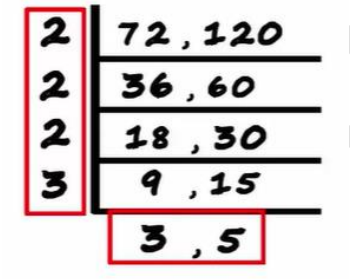


Step 8

Stop here since **3 and 5** are co-prime numbers.

Step 9: Find the LCM.

The product of the numbers in this L shape gives us the LCM of the two numbers.

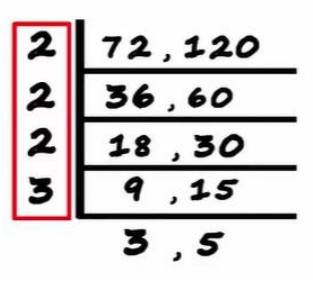


Step 9

LCM = 2 x 2 x 2 x 3 x 3 x 5 = 360

Step 10: Find the HCF.

The product of the factors on the left gives us the HCF



Step 10

HCF = 2 x 2 x 2 x 3 = 24

Summary

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What's next?

In our next segment of Class 10 Maths, we will find the **HCF and LCM of 2 numbers.**