## INTERNATIONAL INDIAN SCHOOL BURAIDAH

Worksheet for the Academic Year 2024-25

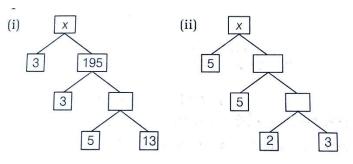
## CLASS: X SUBJECT: MATHEMATICS DATE: 01-04-2024

## LESSON:01 - REAL NUMBERS

## Level 1:

1.	Find the LCM of the smallest prime number and smallest odd composite		
	number is	(Ans: 18)	
2.	Given that LCM (91,26) = 182, then HCF (91,26) =	(Ans: 13)	
3.	If a & b are two positive co-prime integers such that a = 12 b, then		
	HCF(a,12) =	(Ans: 12)	
4.	If $2^3 \times 3^a \times b \times 7$ is the prime factorization of 2520. Then 5a	+ 2b =	
		(Ans: 20)	
5.	Find the HCF and LCM of 26,65,117 using prime factorization.		
	(A	ns: 13,1170)	
6.	6. If the product of two co-prime numbers is 217, Find their LCM.		
		(Ans: 217)	
7.	The ratio between the HCF and LCM of 5,15,20 is	(Ans: 1:12)	
8. Find the LCM of 96 and 360 by using the fundamental theorem of			
	arithmetic.		
		(Ans: 1440)	
9.	9. Find the LCM and HCF of the following pairs of integers and verify that,		
	LCM $\times$ HCF = Product of integers:		
	a) 320 & 84 b) 196 & 144		
(Ans: a) LCM-6720, HCF- 4 & b) LCM-7056, HCF-4)			
10.The HCF of two numbers is 113 and their LCM is 56952. If one number is			
	904, find the other number.	(Ans: 7119)	
11	L.Given that $\sqrt{3}$ is an irrational, prove that 2 $\sqrt{3}$ -1 is an irrationa	al number.	
12.Given that $\sqrt{2}$ is irrational, prove that (3 + 3 $\sqrt{2}$ ) is an irrational number.			
13. Find the LCM of numbers whose prime factorization is expressible as			
		s: 11025)	
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14. If two positive integers x & y are expressible in terms of primes as $x = p^2q^3$			
and $y = p^{3}q$ , what can you say about their LCM and HCF? Is LCM a			
	multiple of HCF? Explain?		

- 15.On a morning walk, three persons step off together and their steps measure 40cm,42cm and 45cm respectively. What is the minimum distance each should walk so that each can cover the same distance and complete steps? (Ans: 2520cm)
- 16.The length, breadth, and height of a room are 8m 25cm, 6m 75 cm, and 4m 50cm respectively. Find the length of the longest rod that can measure the three dimensions of the room exactly. (Ans: 75cm)
- 17.Complete the following factor tree and find the composite number x.



(Ans: (i)585 (ii) 150)

Level 2: 18. Prove that  $\sqrt{2} + \sqrt{3}$  is irrational.

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