

Pre-Content/content Post-Content	Learning outcomes/Objectives	
	General	Specific
Pre-Content Recall Real numbers	Students will be able to define Real numbers	Students will be able to • recall and define real numbers in the hierarchy via Venn diagram
Content Euclid's Division lemma & its application	state Euclid's Division lemma	• state Euclid's Division lemma & apply it to solve questions
Euclid's Division algorithm	state Euclid's Division algorithm	• state Euclid's Division algorithm and relate the concept with Euclid's division lemma • apply it to deduce HCF of two numbers
Fundamental theorem of Arithmetic	state Fundamental theorem of Arithmetic	• apply Fundamental theorem of Arithmetic • express every composite number uniquely as product of primes • explore the relationship between HCF & LCM of two numbers • apply it to deduce HCF & LCM of two numbers
Revisiting Irrational numbers	prove $\sqrt{2}, \sqrt{3}$ irrational	• prove $\sqrt{2}, \sqrt{3}$ are irrational by the method of contradiction
Rational and irrational numbers & their decimal expansions	classify rational numbers under terminating & non-terminating recurring decimals	• identify without actual division whether a given rational number represents terminating & non-terminating recurring decimal • predict if the given decimal expansion represents a rational or an irrational number
Post-content • To work out extra practice questions	apply the knowledge learnt related to find HCF & LCM of given numbers and solve HOTS questions	• apply the concept learnt to solve various problems • acquire Problem solving skills based on the given conditions.

Home Work /Assignments

NCERT exercise/solved examples given as home task.

Questions from sample papers to solve.

Selected questions from NCERT Exemplar.

Teacher's Activity	Student's Activity	Teacher's observation and Remedial
Teacher will ask few questions and help students to recall the concept which they have already studied in the class IX give students a question on division and henceforth to check their result relate division with the statement of Euclid's division lemma explain the series of these steps repeatedly done to find the HCF of two numbers explain the fundamental theorem of arithmetic and how to relate and make use of the same in deducing HCF and LCM of two numbers give instructions for the LCM of two numbers via a Hands on activity (Annexure 1) explain the method of contradiction to prove $\sqrt{2}, \sqrt{3}$ are irrational numbers explain the concept of decimal expansion of rational and irrational numbers ask for the decimal expansion of real numbers orally give them extra similar questions to solve	Students will answer the questions and draw Venn diagram based on their previous knowledge solve the questions given find the HCF of two numbers apply Fundamental theorem of Arithmetic to solve questions perform the activity as per the instructions given (Annexure 1) prove the problems given in the exercise on the same topic solve the problems given in the exercise. answer the questions asked based on the concepts taught apply the concept and solve the given practice questions	Teacher will write his/her observations after the completion of the topic

Teaching Aids: Smart board, Text book, Graph paper, Worksheets, Internet

Methodology/Innovative methods: Digital technology, Lecturing, Note giving, Questioning, Discussion

Interdisciplinary Links: Architecture

HOD

Coordinator

Vice- Principal

Principal

ACTIVITY NO. - 1

Subject	Mathematics
Class	X
Chapter/Unit	Real Numbers
Topic	LCM of two numbers
Time	15 minutes
Nature of Activity	Individual

What will I learn (Learning Outcome)?

Finding the LCM of two positive integers.

Skills: Applying, Analyzing and Creativity

What I have to do?

To find the LCM of two positive integers (say 6 and 10).

What do I require?

Graph sheet, Geometry box.

What do I need to know?

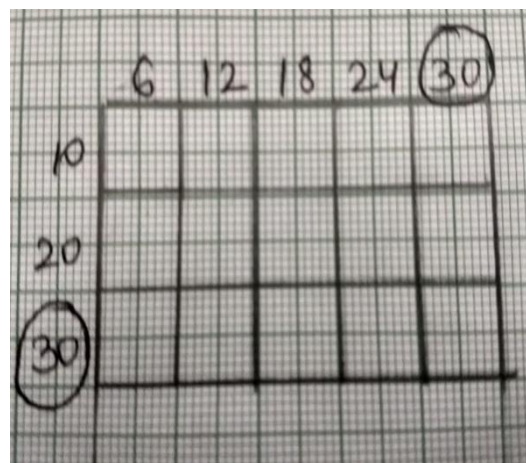
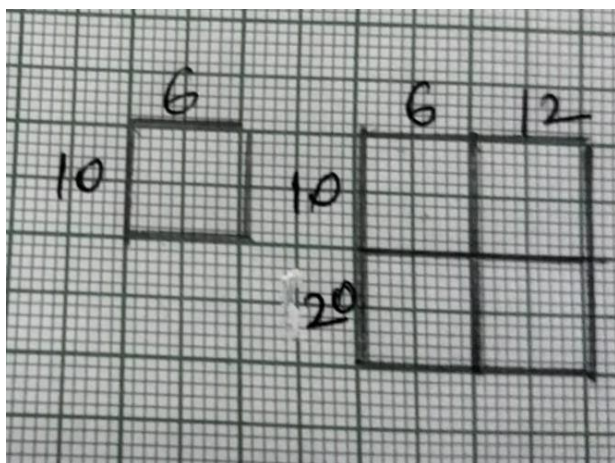
Factors and multiples, meaning of LCM.

➤ **Teacher's Activity**

Teacher will ask students questions based on multiples of a number and hence least common multiple out of all the multiples.

How will I proceed?➤ **Student's Activity**

- 1) Make a square on a graph sheet.
- 2) Write 6 along one side and 10 along its adjacent side. (as shown below)
- 3) Write the first multiple of the number written along the next square and repeat the same for the other number written along the adjacent side.
- 4) Keep on drawing the squares along the side while writing the multiples.(as shown below)
- 5) Continue writing the multiples of the numbers till they are equal.



What have I observed?

LCM(6,10) = _____

What have I learnt?

From the above activity, the least common multiple of 6 and 10 is _____

What am I curious to learn?

Perform the steps above to find LCM (12,15).

Let me evaluate myself

- 1) Find the LCM of $2^3 \times 5$ and $2^2 \times 5^2$.

- 2) If two positive integers c and d are written as $c = xy^2$ and $d = x^3y$, where x, y are prime numbers, find LCM (c, d).

- 3) On a morning walk, three persons step off together and their steps measure 24 cm, 15 cm and 36 cm respectively. What is the minimum distance each should walk so that each can cover the same distance in complete steps?
