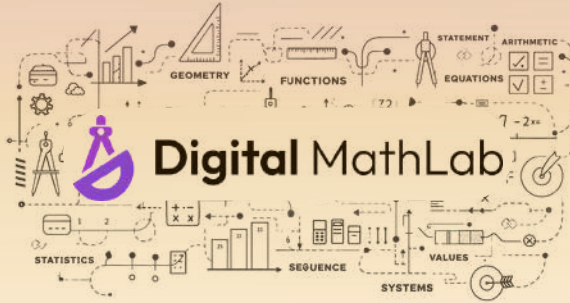


Introducing



A FIRST-OF-ITS-KIND NEXT-GENERATION  
MATHEMATICS LEARNING TOOL

Where *Mathematics* is best *Understood* when it is,  
SEEN ● EXPLORED ● EXPERIENCED



FOR CLASSES 5 - 10

# Redefining the Equation

## A MODERN LEAP TOWARD THE FUTURE OF MATHEMATICS

Mathematics is often seen as abstract when taught only through formulas and procedures. However, true understanding develops when students can see, explore, and interact with concepts.

Aligned with NCERT recommendations, Mathematics Laboratories create a hands-on learning environment where students experiment, observe patterns, and build strong conceptual clarity beyond memorization.

Visual interpretation supports clarity in complex concepts

V

Interaction with ideas forms the foundation of effective learning

I

Exploration encourages independent reasoning

E

Willing engagement leads to sustained interest in learning

W



'DIGITAL MATHLAB' BRINGS THIS VIEW INTO A MODERN DIGITAL CLASSROOM

## Mathematics Laboratory Approach VS Modern Education Framework

### EMPHASIS



Exploration

Experiential Learning



Conceptual Discovery

Technology-Enabled Education



Hands-On Learning

Competency-Based Learning



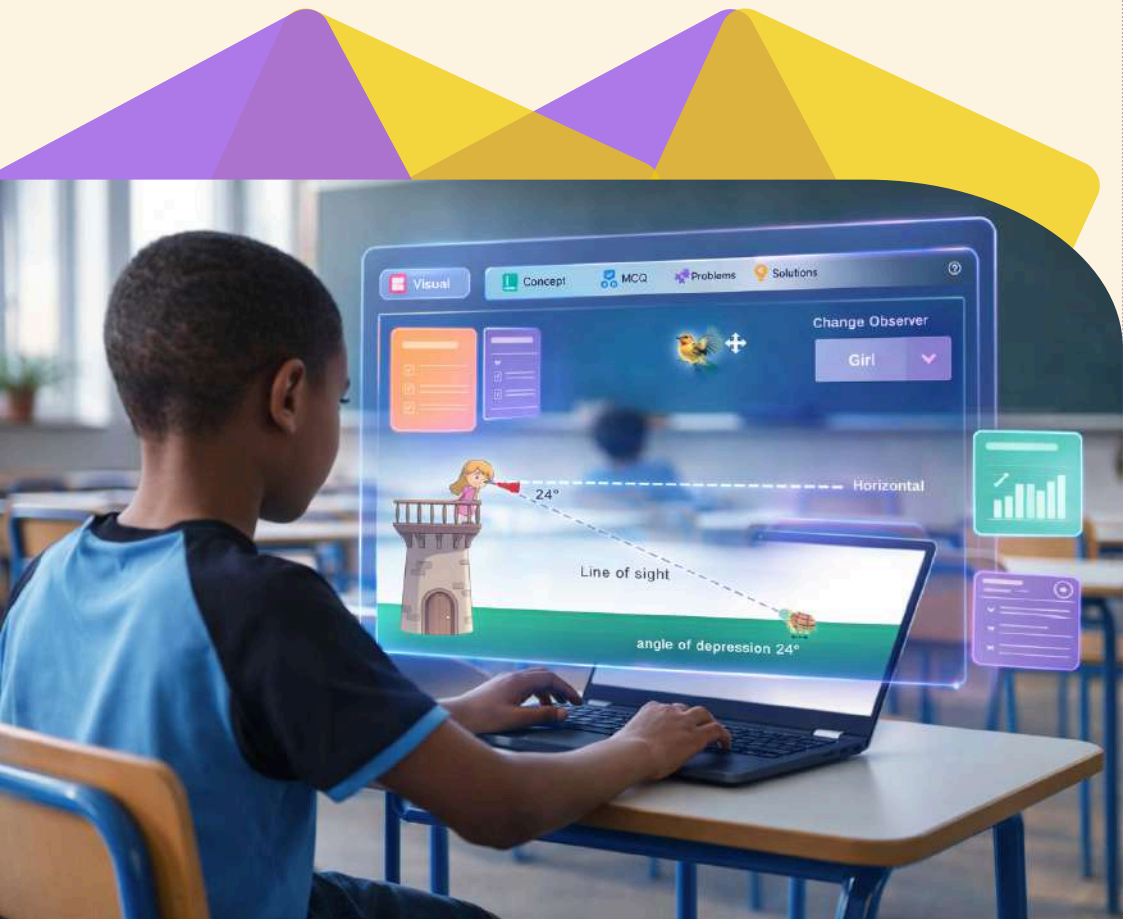
This vision is further strengthened by the National Education Policy 2020, which calls for classrooms that integrate experiential learning, technology-enabled instruction, and competency-based education. Together, these educational perspectives point toward a clear direction for modern mathematics education — one that transforms learning from theoretical instruction into an engaging, interactive, and concept-driven experience where students truly see and experience mathematics.

# Introducing DIGITAL MATHLAB

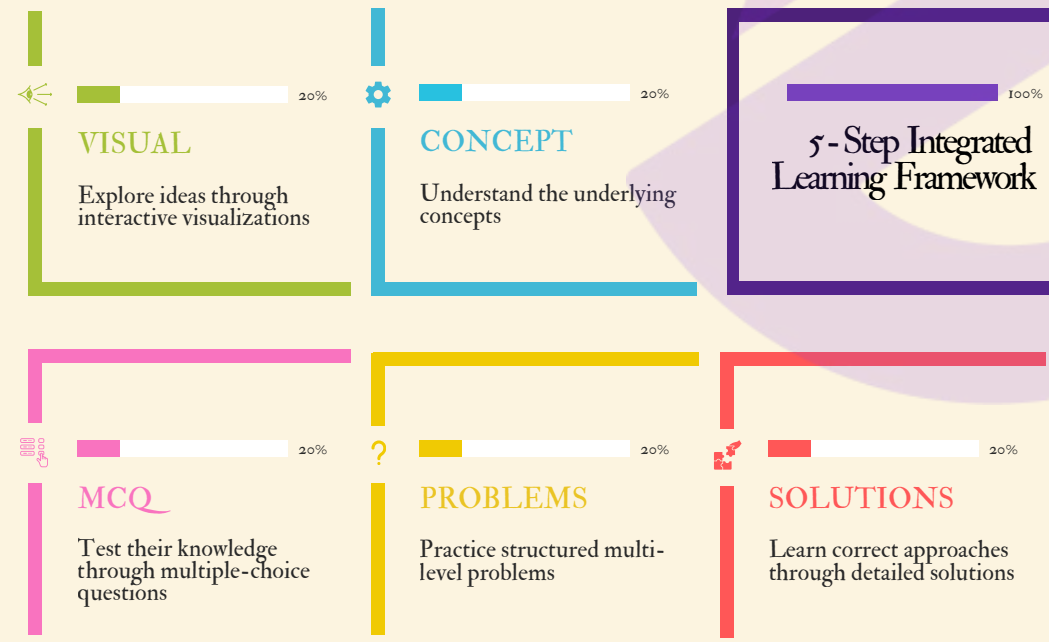
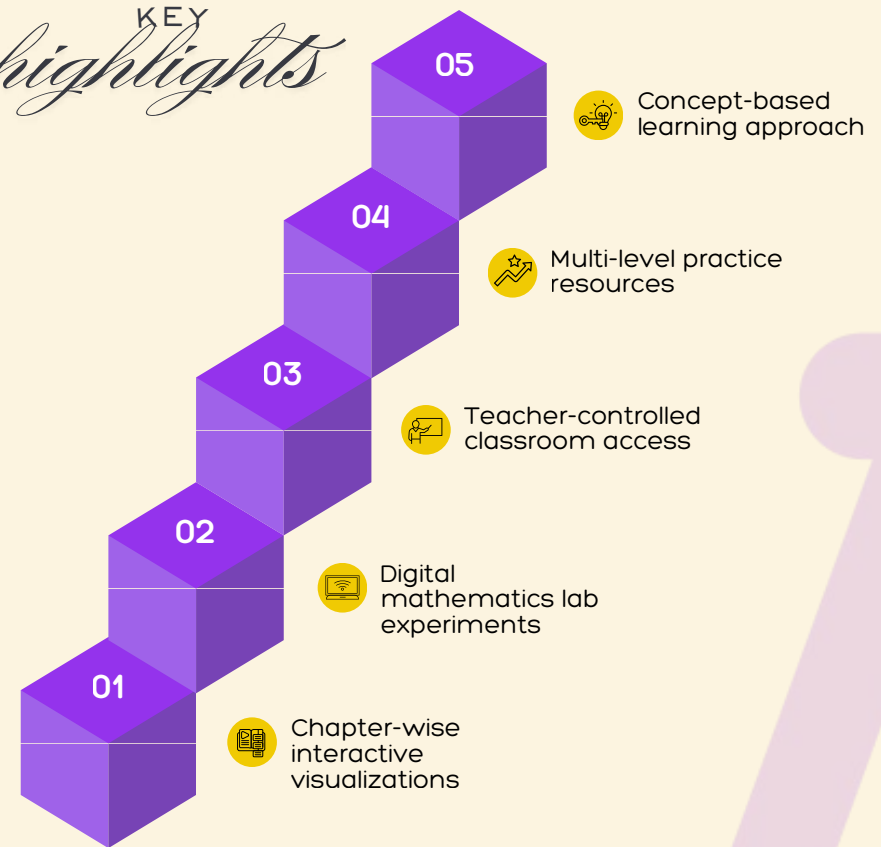


Digital MathLab is a comprehensive, NCERT-aligned, chapter-wise interactive mathematics visualization platform designed for Classes 5 to 10. It transforms traditional mathematics learning into a visual, interactive, and exploratory experience. Each chapter in Digital MathLab is organized into five integrated sections—Visual, Concept, MCQ, Problems, and Solutions

Students can see mathematics in action, explore concepts, and develop deeper conceptual understanding. Teachers can demonstrate abstract ideas visually, making mathematics more engaging and accessible for every learner.



## KEY highlights



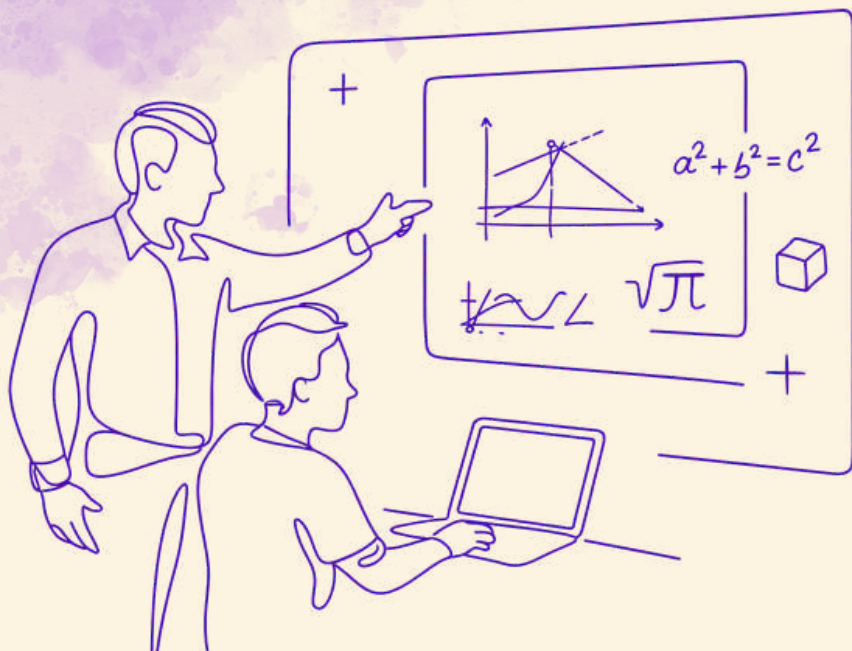
# A DUAL-USE PLATFORM FOR *Teachers & Students*

Digital MathLab is built to create an engaging environment where mathematics can be seen, explored, and truly understood. Instead of learning concepts only through formulas and procedures, students experience mathematics through visual exploration, interactive experiments, and guided practice.

The platform transforms the traditional classroom into a dynamic learning space where abstract ideas become clear and intuitive. Through interactive visualizations and digital lab activities, teachers can demonstrate mathematical concepts more effectively, making lessons more engaging and easier to grasp.

At the same time, Digital MathLab empowers students to take an active role in their learning. By providing a digital laboratory environment, students can experiment with concepts, explore patterns, and develop deeper conceptual understanding at their own pace.

By combining visualization, experimentation, and structured learning pathways, Digital MathLab supports both teacher-guided instruction and independent student discovery, creating a balanced ecosystem that nurtures curiosity, clarity, and confidence in mathematics.



## *Two* Approaches, *One* Learning Ecosystem

for Teachers		for Students
Visually demonstrate mathematical concepts using interactive digital tools.	<b>Concept Delivery</b>	Understand concepts through visual exploration & observation.
Guide students through structured digital math experiments and demonstrations.	<b>Learning Method</b>	Discover concepts independently through exploration and experimentation.
Engage the classroom using interactive visuals & dynamic mathematical models.	<b>Classroom Interaction</b>	Actively participate in learning through hands-on interaction with digital models.
Assign and monitor digital laboratory experiments through the teacher dashboard.	<b>Activity Management</b>	Perform assigned activities and explore additional experiments independently.
Design & facilitate concept-based learning pathways for students.	<b>Learning Progression</b>	Practice concepts through exercises with progressively increasing difficulty levels.
Act as a facilitator and guide for conceptual understanding.	<b>Role in Learning</b>	Become an active learner developing independent conceptual clarity.

# Key Functionalities

01



## Interactive Visualization of Mathematical Concepts

Digital MathLab presents mathematical concepts through interactive visualizations. These visuals help students clearly understand abstract ideas and make learning more engaging.

02



## Usage Analytics and Insights

The platform provides usage analytics for both teachers and students. These insights help teachers monitor engagement and track learning progress.

03



## Engaging and Time-Efficient Teaching

Teachers can use interactive visuals to demonstrate mathematical concepts in the classroom. This makes lessons more engaging while helping teachers explain ideas quickly and effectively.

04



## Comprehensive Learning Resources

It provides a wide range of learning resources for each concept, including - Interactive Visualizations, Concept Maps MCQs, Practice Problems with Solutions, 4 levels of questions, including case-study and assertion-reasoning types.

05



## Seamless Student Access Management

Teachers can provide students with access to learning resources directly through the teacher dashboard. This removes the need to share individual student credentials.

06



## Digital Mathematics Lab Experiments

Teachers can assign digital mathematics lab experiments for different concepts. Each experiment includes clear instructions and lab manuals that guide students to explore and understand the concept step by step.

07



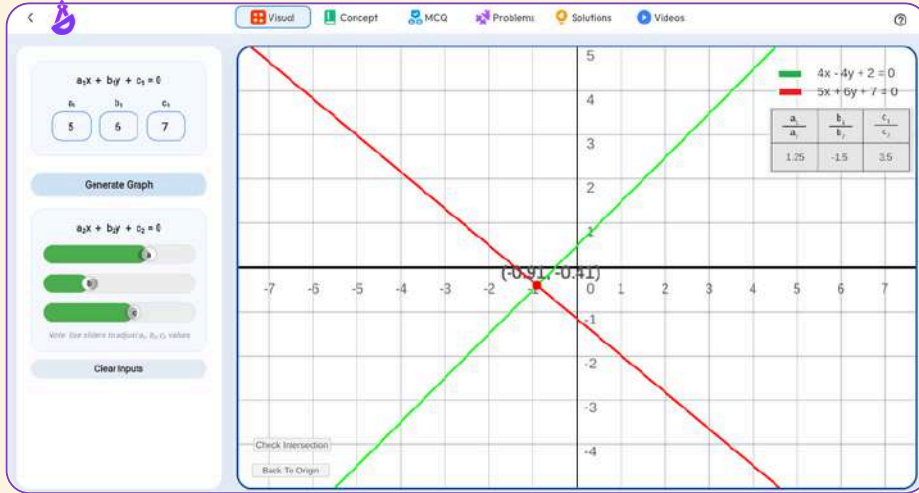
## White-Label Solution

Digital MathLab can be deployed as a white-label platform. Institutions can present and use the platform under their own brand identity.

# Inside



# DIGITAL MATHLAB



System	Consistent pair of equations	Inconsistent pair of equations	Dependent pair of equations
Pair of lines (Example)	$x - 2y = 0$ $3x + 6y - 20 = 0$	$2x - 4y = 0$ $3x + 6y - 13 = 0$	$2x + 3y - 9 = 8$ $4x + 6y - 18 = 0$
(i)	1	2	3
(ii)	2	4	6

QUESTION: If  $x = 1$  &  $y = 2$  is the solution of the pair of linear equations  $2x + 3y - 5 = 0$ ,  $3x + 2y - 4 = 0$ , then  $x^2 + y^2$  is equal to

SOLUTION:  $x = 1$ ,  $y = 2$

3

PAIR OF LINEAR EQUATIONS IN TWO VARIABLES

3.4 Worksheet

LEVEL-1- Let's get started!

1. On comparing the ratios  $\frac{a_1}{a_2}$ ,  $\frac{b_1}{b_2}$  and  $\frac{c_1}{c_2}$  and without solving, find out whether the lines representing the following pairs of linear equations intersect at a point, are parallel or coincident.

(i)  $3x - 4y + 8 = 0$   
 $7x + 4y - 6 = 0$

(ii)  $2x + 3y - 6 = 0$   
 $4x + 6y - 12 = 0$

(iii)  $3x + 2y - 4 = 0$   
 $6x + 4y - 8 = 0$

PAIR OF LINEAR EQUATIONS IN TWO VARIABLES

3.4 Worksheet

LEVEL-1- Let's get started!

1. On comparing the ratios  $\frac{a_1}{a_2}$ ,  $\frac{b_1}{b_2}$  and  $\frac{c_1}{c_2}$  and without solving, find out whether the lines representing the following pairs of linear equations intersect at a point, are parallel or coincident.

(i)  $3x - 4y + 8 = 0$   
 $7x + 4y - 6 = 0$

Solution:  $3x - 4y + 8 = 0$  ...  $7x + 4y - 6 = 0$  ...



## Visual

Visualizing mathematical ideas helps students understand abstract concepts more clearly and intuitively.



## Concept

Strong conceptual explanations build a solid foundation and help students understand the logic behind mathematical ideas.



## MCQ

Regular concept checks through MCQs help students assess their understanding and reinforce learning.



## Problems

Structured practice problems help students apply concepts and develop strong problem-solving skills.



## Solutions

Detailed solutions guide students in understanding correct methods and learning from mistakes.



## Videos

Offer clear, step-by-step visual explanations that help students understand concepts quickly and easily.

# Platform Features

A CLEAR PATH TO BUILD A STRONG FOUNDATION IN MATHEMATICS.

# *Why Your School Should Consider Digital Math Lab...?*

Digital MathLab represents the next phase of mathematics education, offering a ready-to-use, student-friendly, and pedagogically robust digital solution that integrates seamlessly into regular classroom instruction. By adopting this platform, schools can effectively transform mathematics teaching into an engaging, exploratory, and meaningful learning experience—shifting from rote procedures to deep conceptual understanding and long-term learning outcomes.

[www.digitalmathlab.in](http://www.digitalmathlab.in)



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# “

## Connect With Us from Anywhere!

