Sangeeta Gulati

Head, Department of Mathematics
Sanskriti School
New Delhi,India

From a Teacher to an Innovator & Trainer

- My Journey

1990

Started teaching career at **Springdales School, Pusa Road, New Delhi.**

Joined Sanskriti School in 2000

2011

Fulbright Distinguished Award in Teaching

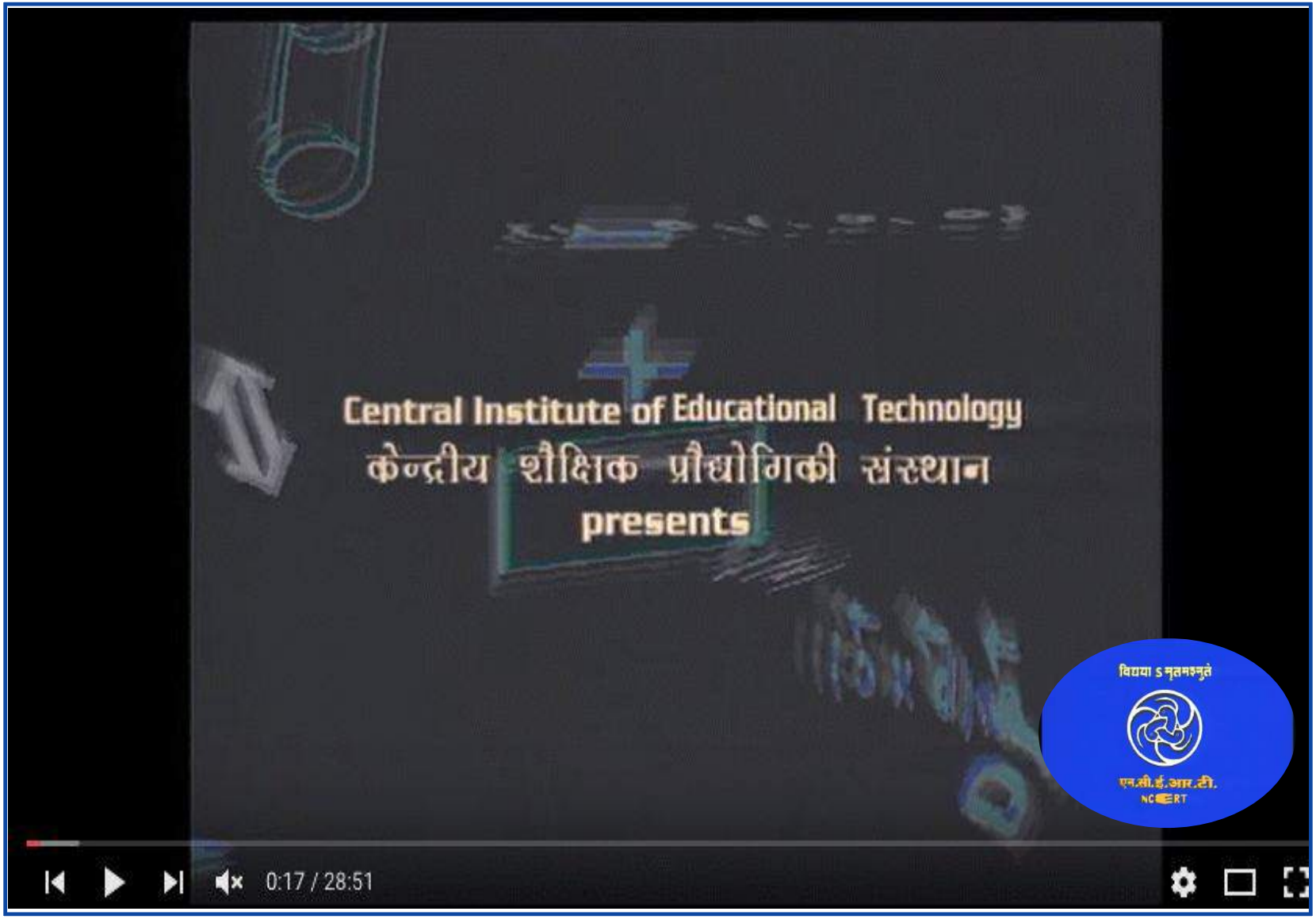
2014

2016

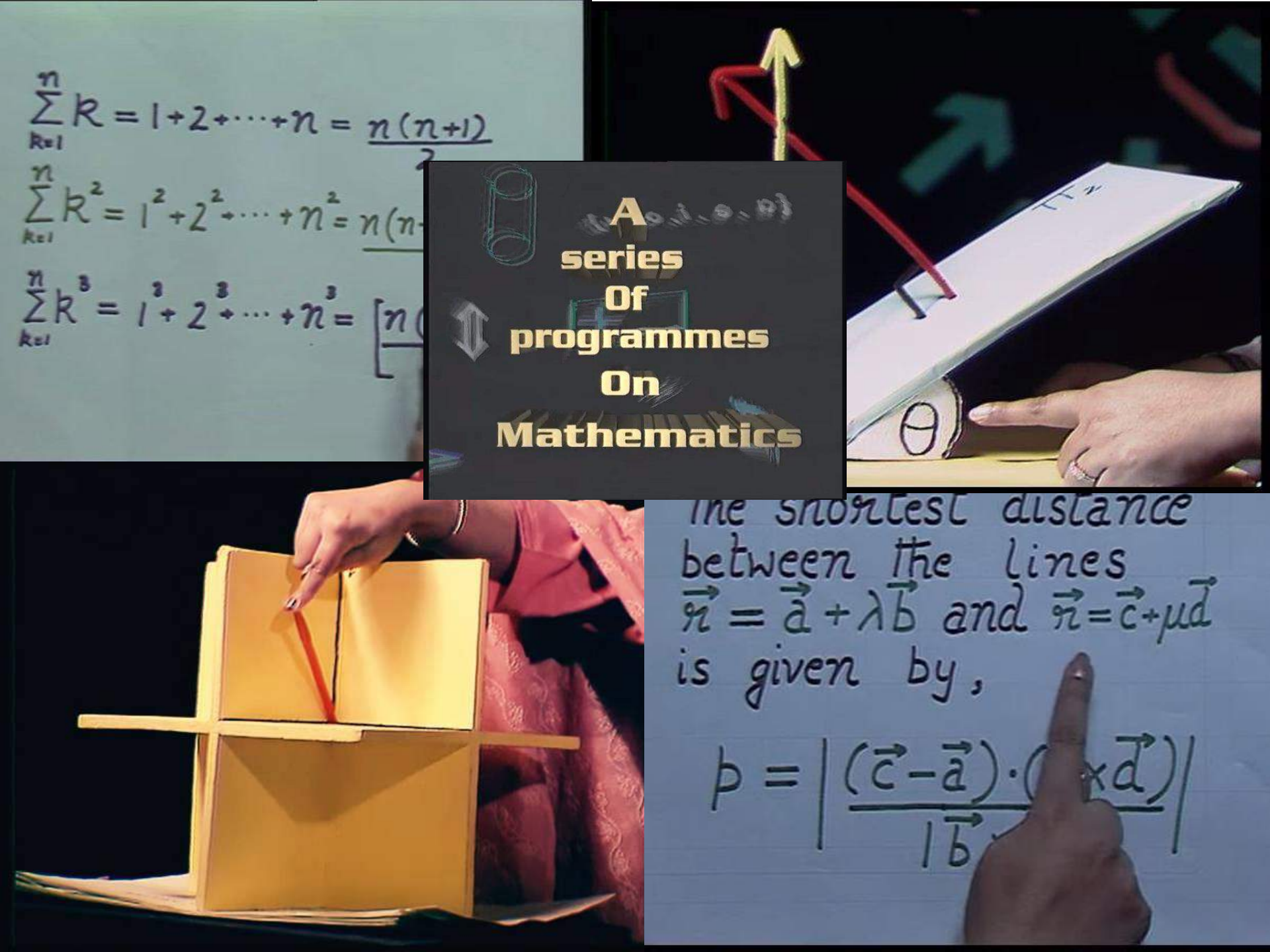
National ICT Award

2019

Slides Template by @SlidesManiaSM


Central Institute of Educational Technology
केन्द्रीय शैक्षिक प्रौद्योगिकी संस्थान
presents
विद्यया ऽमृतमश्नुते
एन.सी.ई.आर.टी.
NCERT
0:17 / 28:51

Lessons telecast on National Channel- Gyan Darshan


$\sum_{k=1}^{n} k = 1+2+\cdots+n = \frac{n(n+1)}{2}$
$\sum_{k=1}^{n} k^2 = 1^2+2^2+\cdots+n^2 = n(n$
$\sum_{k=1}^{n} k^3 = 1^3+2^3+\cdots+n^3 = [n($
A
series
Of
programmes
On
Mathematics
θ
The shortest distance
between the lines
$\vec{r} = \vec{a} + \lambda\vec{b}$ and $\vec{r} = \vec{c} + \mu\vec{d}$
is given by,
$p = \left| \frac{(\vec{c}-\vec{a})\cdot(\quad \times \vec{d})}{|\vec{b}} \right|$

If two dice are rolled what is the probability of getting a sum of 7 ?

What is the probability of getting a sum of 7 given that one die shows a 5 ?

Sample space has 11 outcomes

{(1,5), (2,5), (3,5), (4,5), (5,5), (6,5), (5,1), (5,2), (5,3), (5,4), (5,6)}

$\therefore$ $(n+1)^{th}$ term is the middle term.

$$T_{r+1} = {}^{2n}C_r (1)^{2n-r} x^r$$

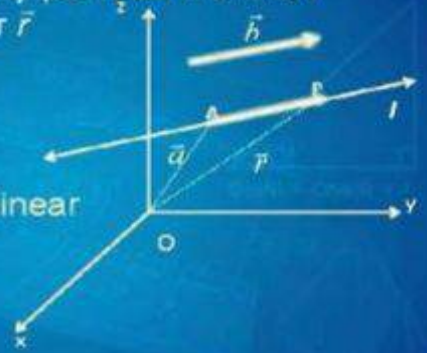
$$\Rightarrow T_{n+1} = {}^{2n}C_n x^n = \frac{2n!}{n!n!} x^n$$

$$= \frac{2n(2n-1)(2n-2)(2n-3)(2n-4)...4.3.2.1}{n!n!} x^n$$

$$= \frac{[2n(2n-2)(2n-4)...4.2][(2n-1).(2n-3).(2n-5)...3.1]}{n!n!} x^n$$

$$\frac{1.3.5...(2n-1)}{n!} 2^n x^n$$

Let P (x, y, z) be any point on the line l with position vector $\vec{r}$

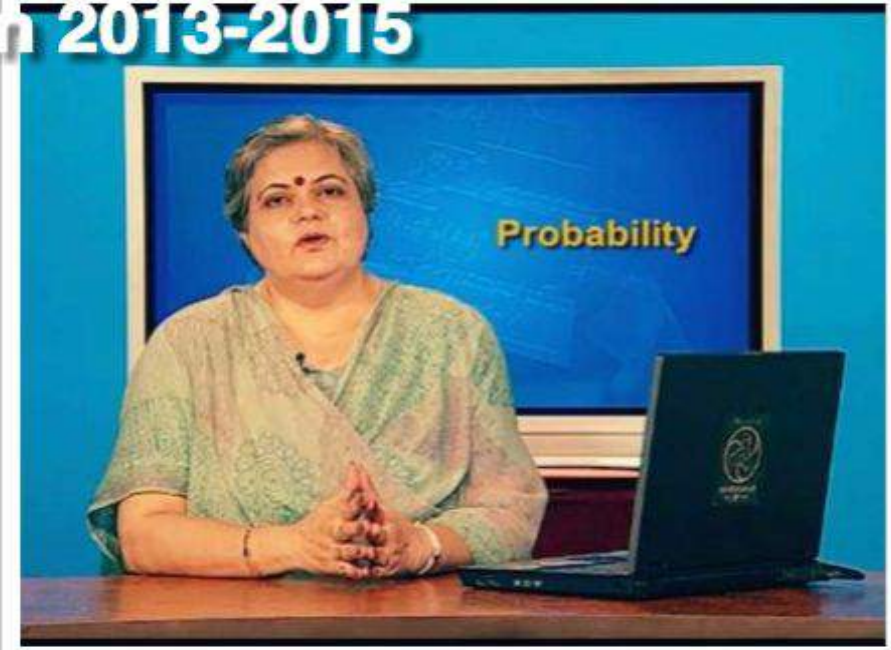


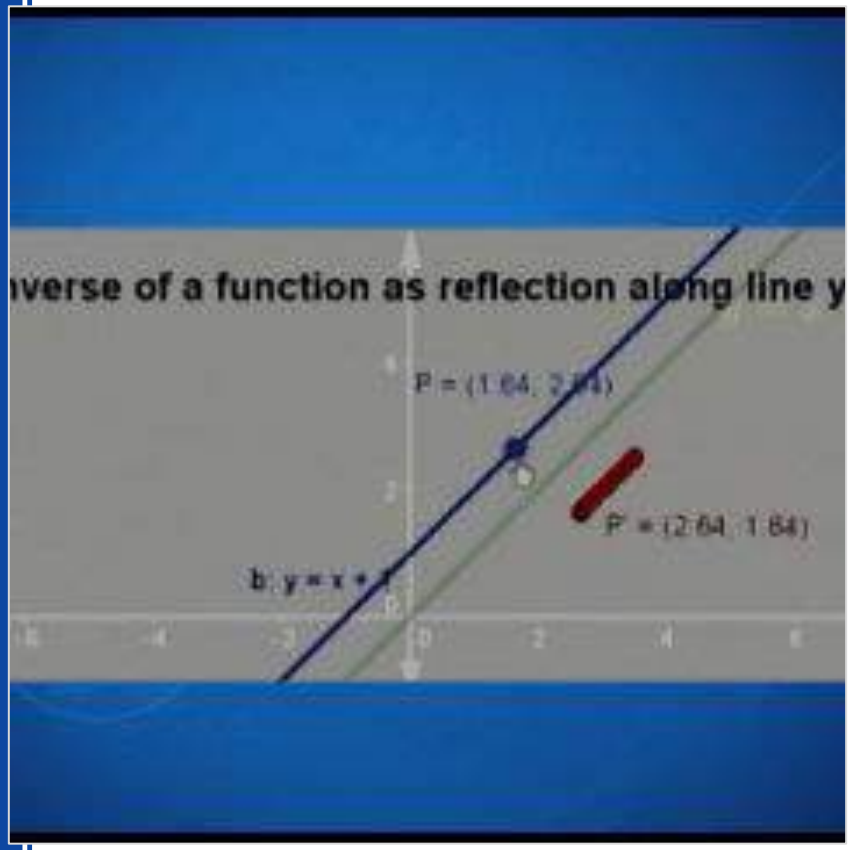
$\overrightarrow{AP}$ and $\vec{b}$ are collinear

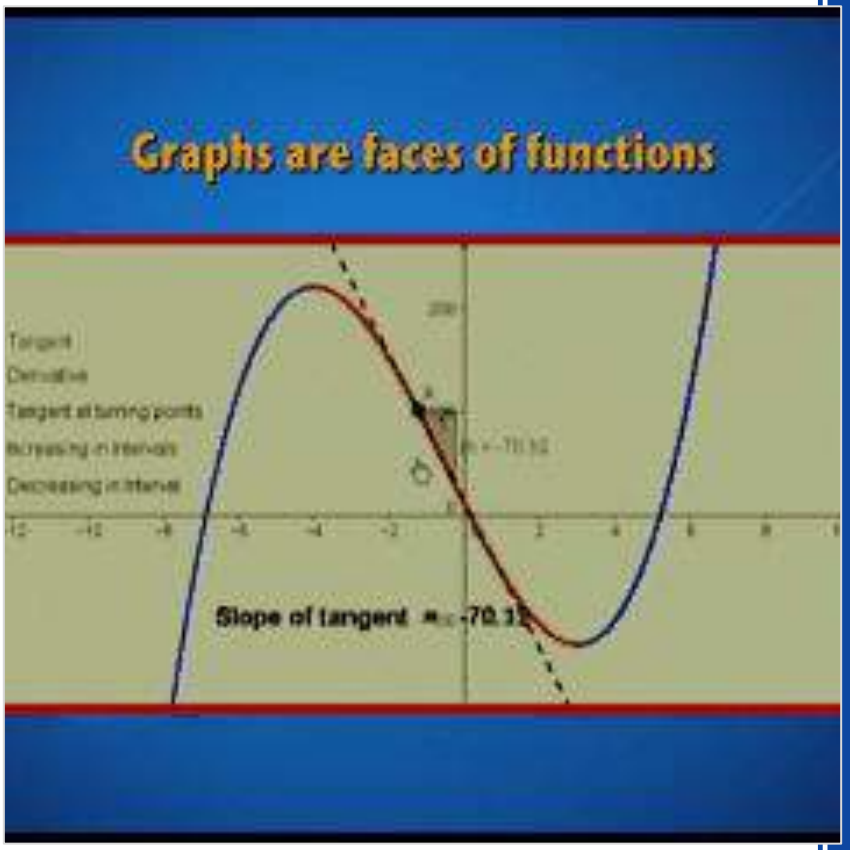
$\Rightarrow \overrightarrow{AP} = \lambda \vec{b}$

$\Rightarrow \vec{r} - \vec{a} = \lambda \vec{b}$

Recordings in 2013-2015




nverse of a function as reflection along line y
P = (1.64, 2.64)
P' = (2.64, 1.64)
b: y = x + 1


Graphs are faces of functions
Tangent
Derivative
Tangent at turning points
Increasing in interval
Decreasing in interval
Slope of tangent

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nroer.gov.in

00:30 / 15:52

Episode 01 of the video lectures on chapter 02 of the Mathematics textbook for class 12; covers inverse of functions and principle value branch of sine inverse

[*Source CIET, NCERT*]

Download

ई पाठशाला learning on the go

Technology in My Classroom
-a new beginning!

Second National Conference on
Technology & Innovation
in Mathematics Education
2007
1-4 December 2007

Presenting Geometric Wonders at IIT Powai in 2008

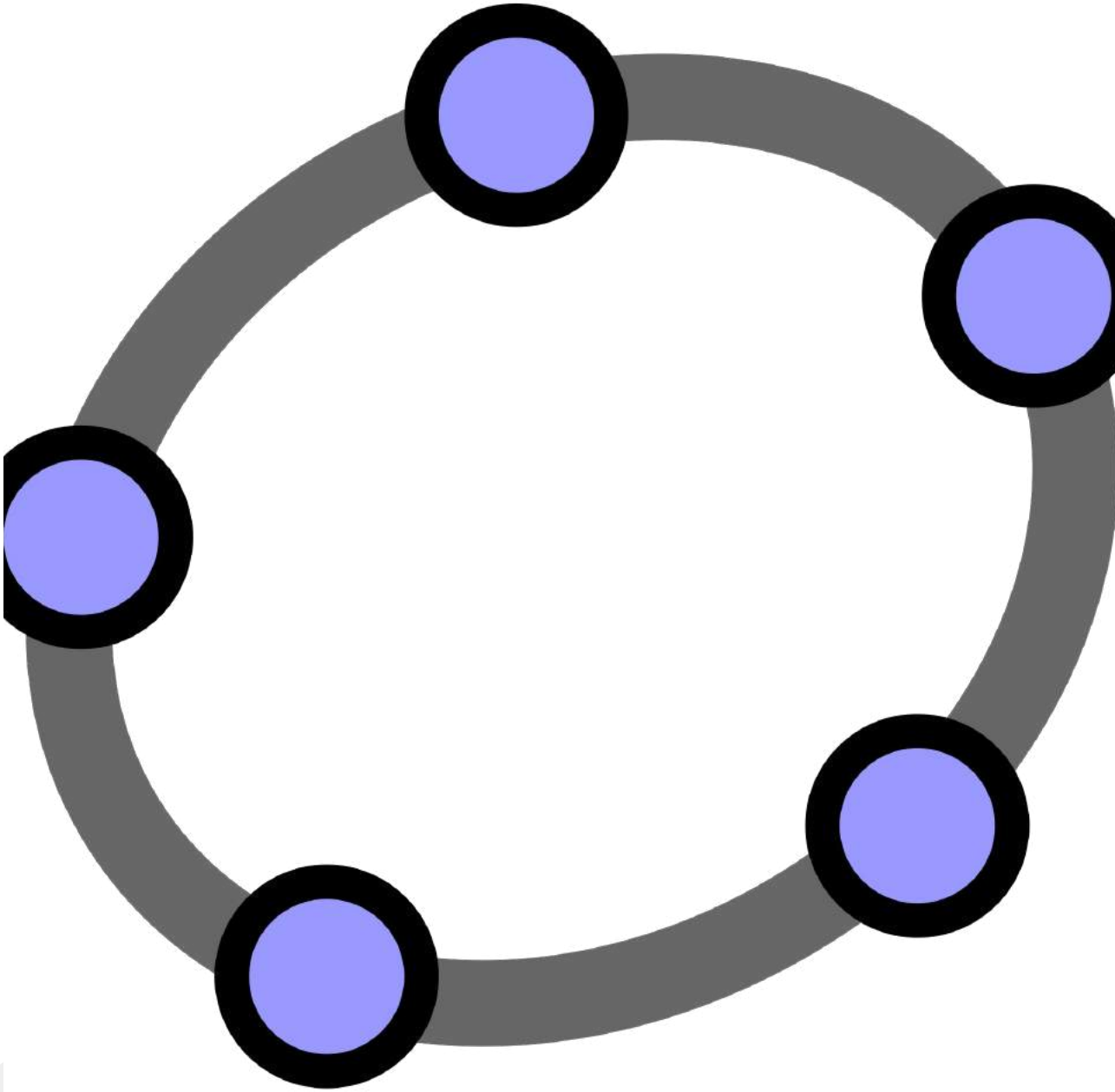
I MEASURE TECHNOLOGY I USE, NOT BY HOW COOL IT IS, BUT BY HOW WELL IT HELPS MY STUDENTS LEARN

My Strategy

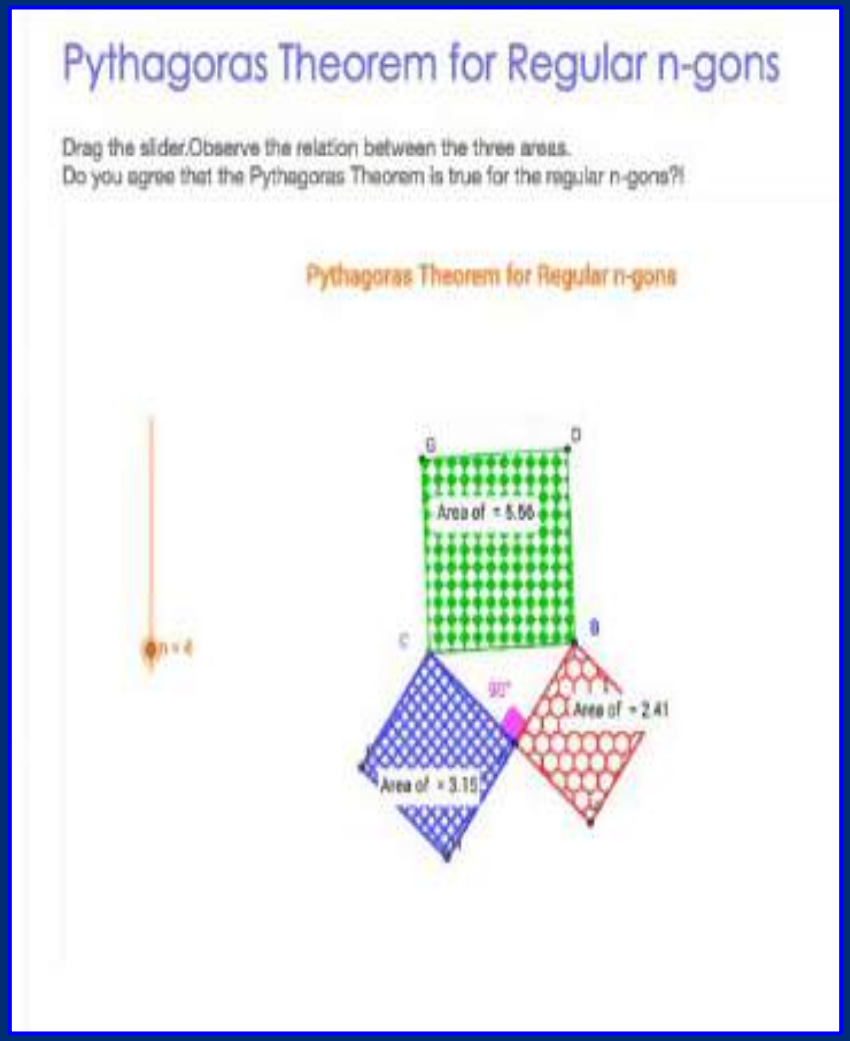
ICT is used to

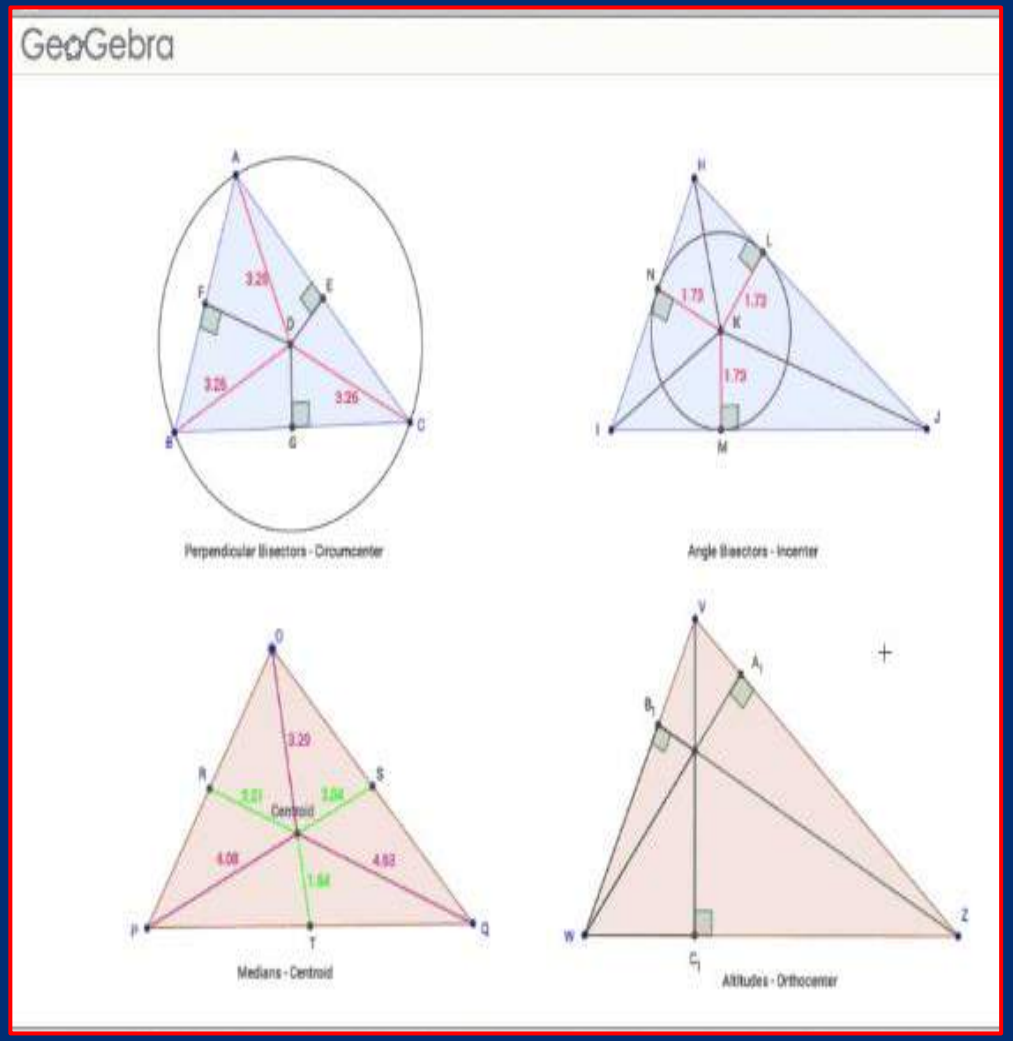
- Experience mathematical concepts in exciting ways
- to practice and test new material
- stay connected and extend school hours to 24x7

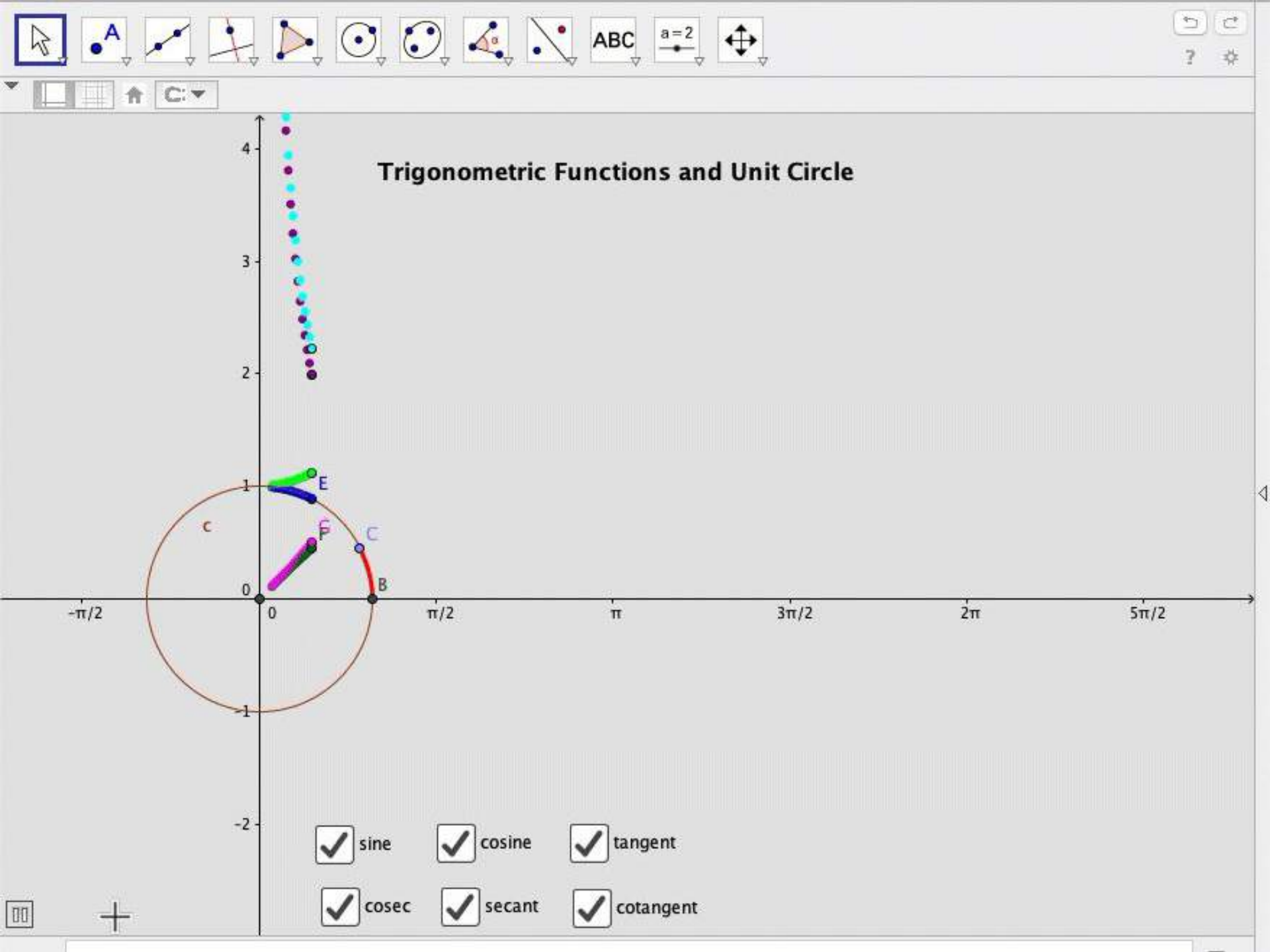
The Game Changer-an Open Source Software



Maths Comes Alive With GeoGebra






Trigonometric Functions and Unit Circle
4
3
2
1
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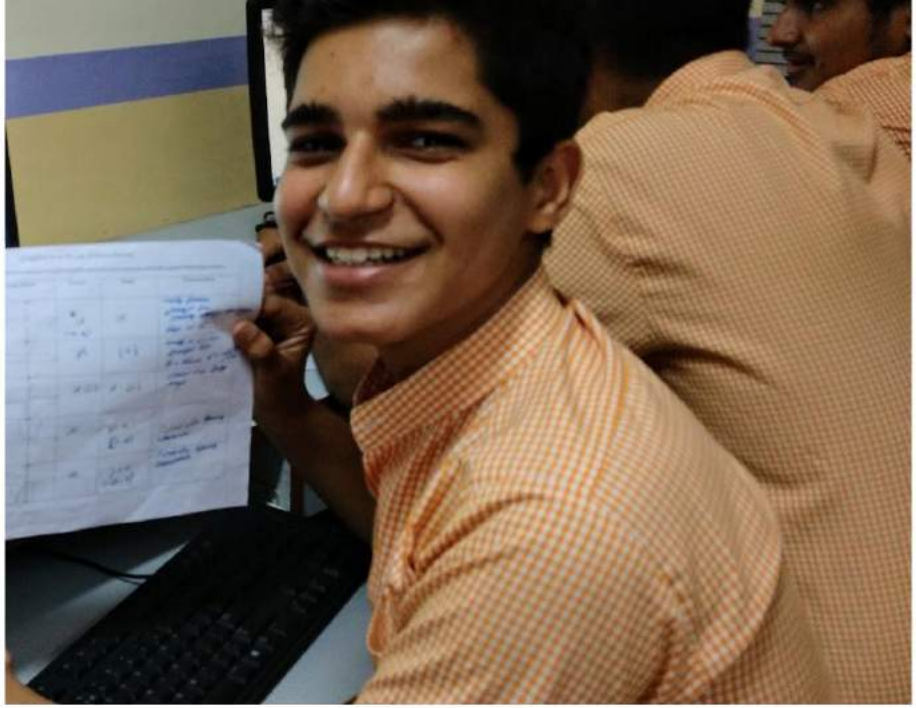
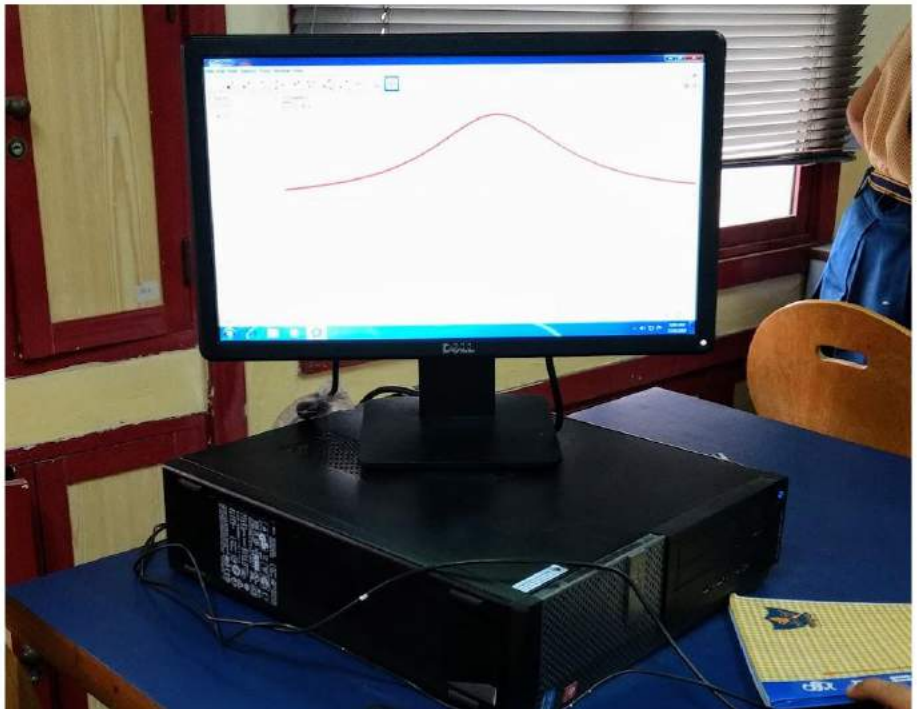
-1
-2
-π/2
0
π/2
π
3π/2
2π
5π/2
E
F
C
B
c
sine
cosine
tangent
cosec
secant
cotangent

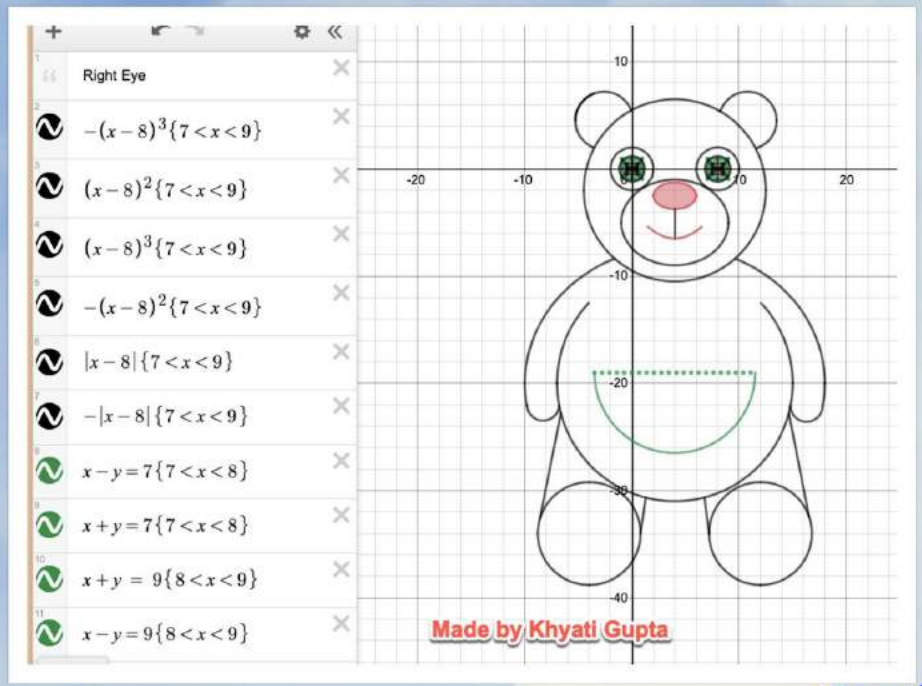


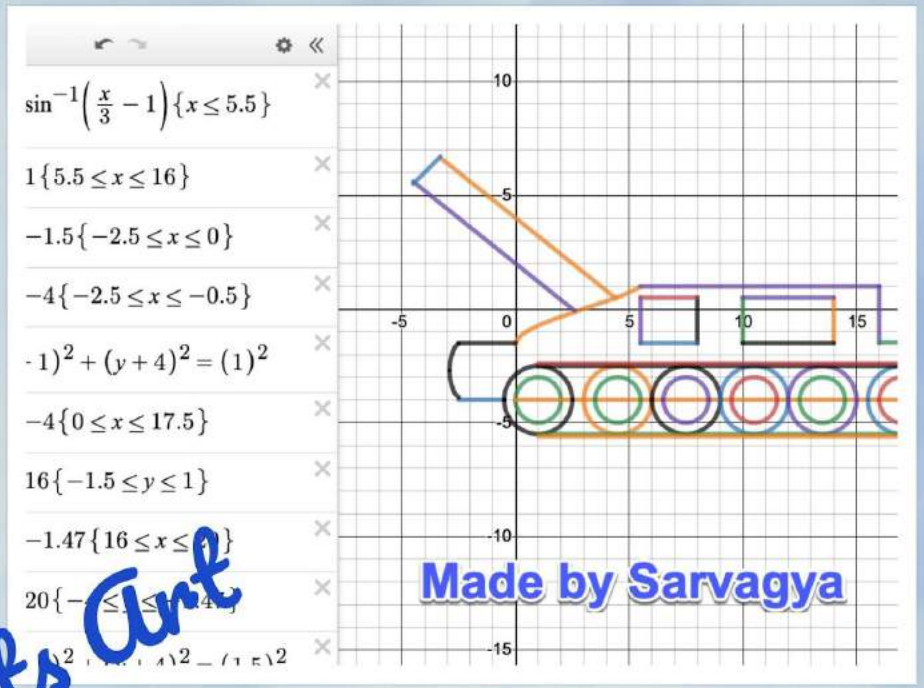


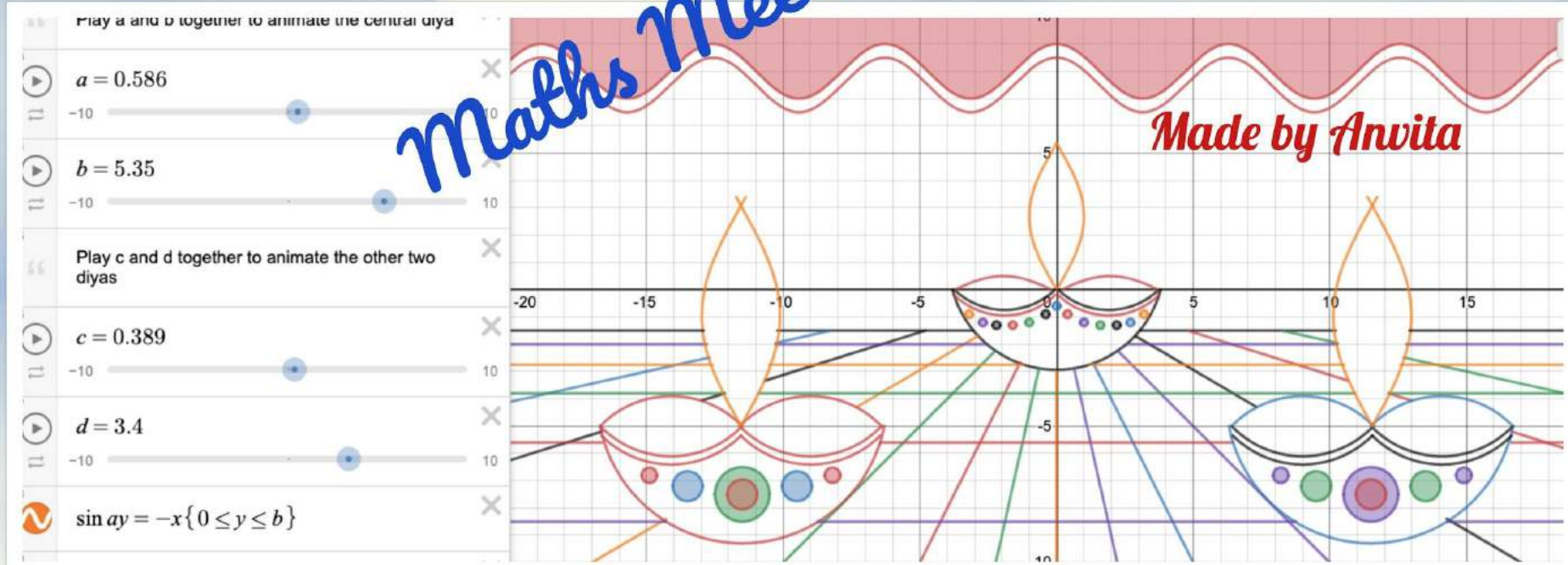
Desmos

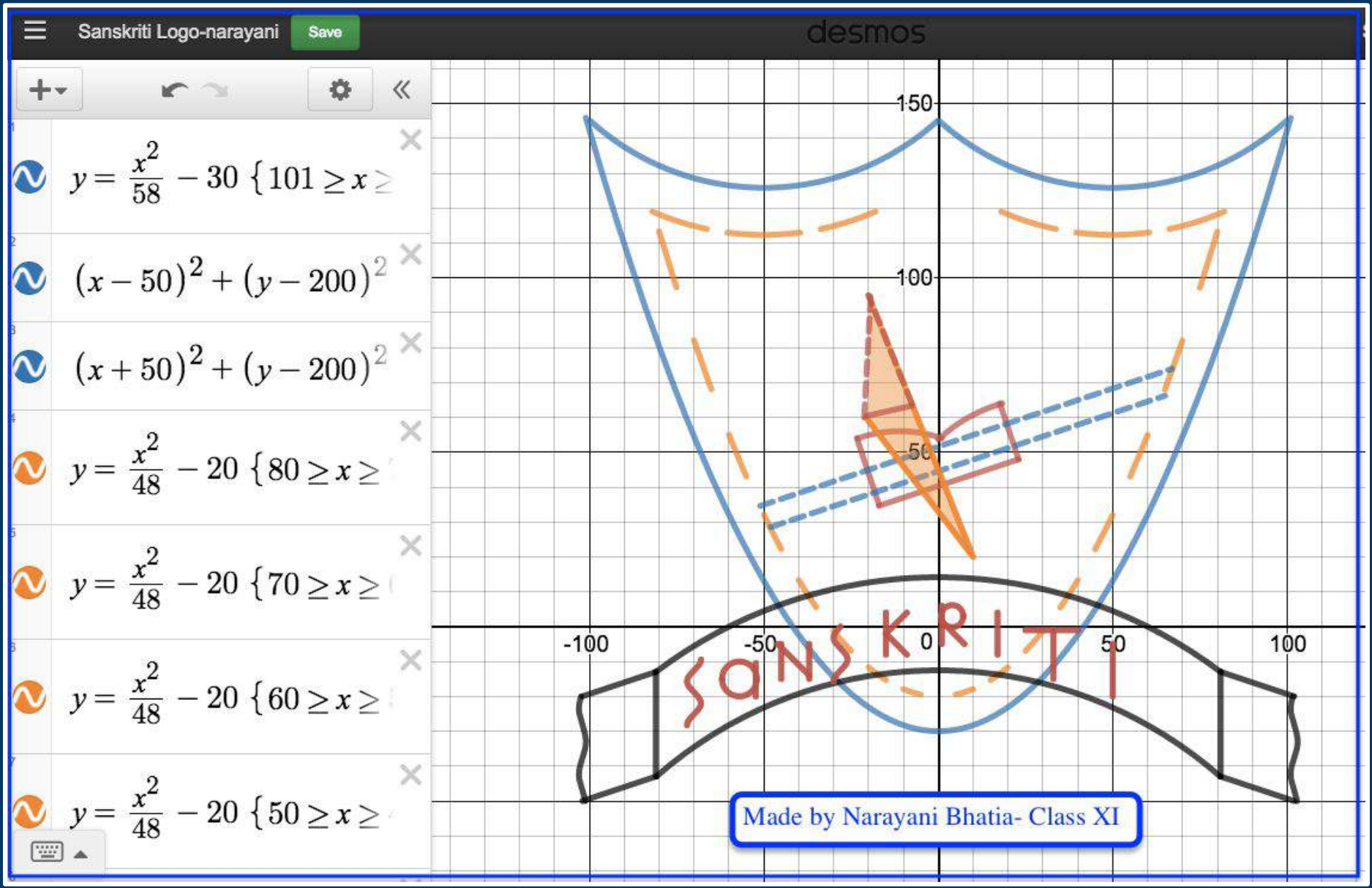
- **Maths & Art**
- **Concept Building**
- **Student Engagement**

Maths Meets Art








Sanskriti Logo-narayani
Save
desmos
$y = \frac{x^2}{58} - 30\{101 \geq x \geq$
$(x-50)^2 + (y-200)^2$
$(x+50)^2 + (y-200)^2$
$y = \frac{x^2}{48} - 20\{80 \geq x \geq$
$y = \frac{x^2}{48} - 20\{70 \geq x \geq$
$y = \frac{x^2}{48} - 20\{60 \geq x \geq$
$y = \frac{x^2}{48} - 20\{50 \geq x \geq$
150
100
50
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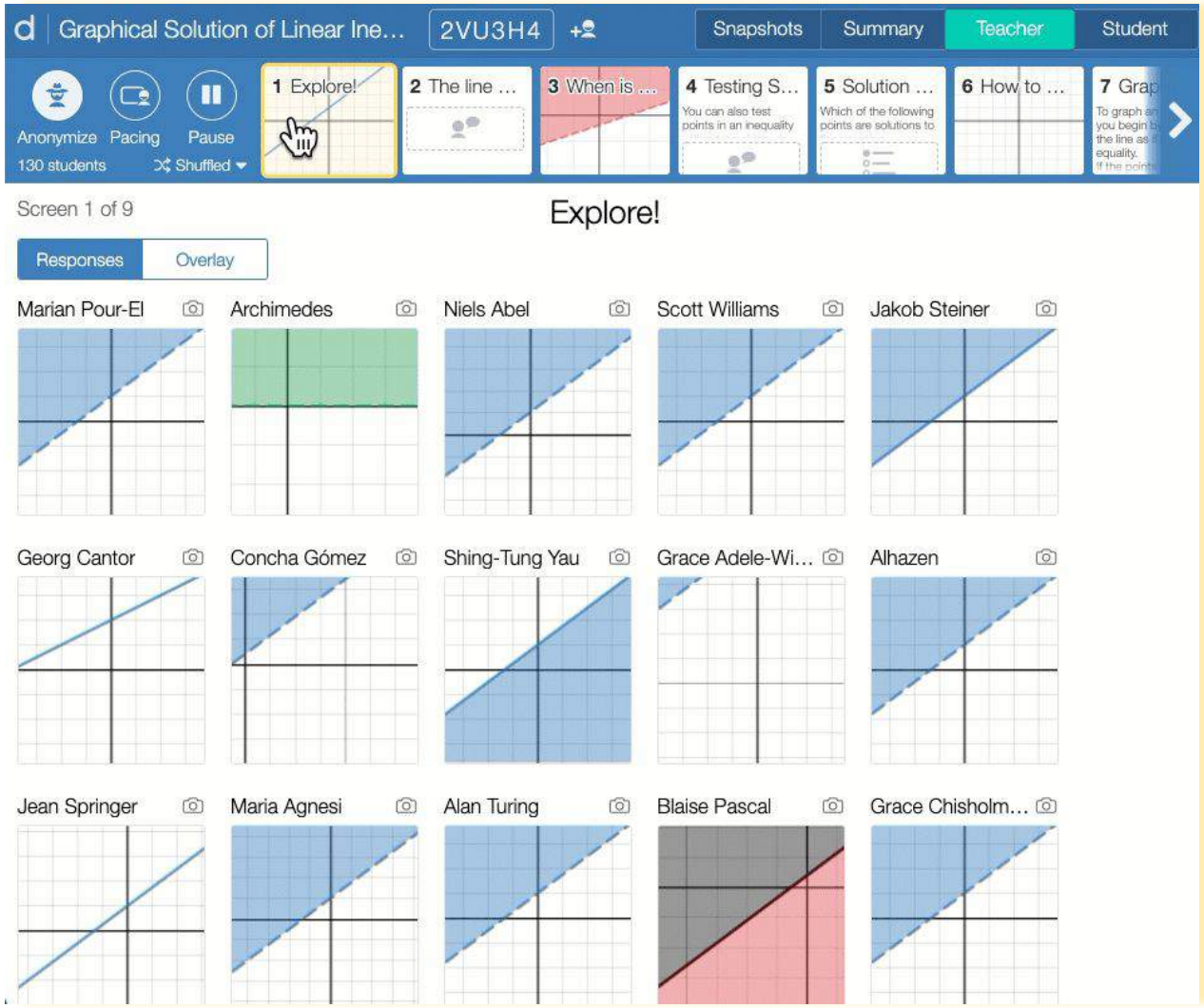
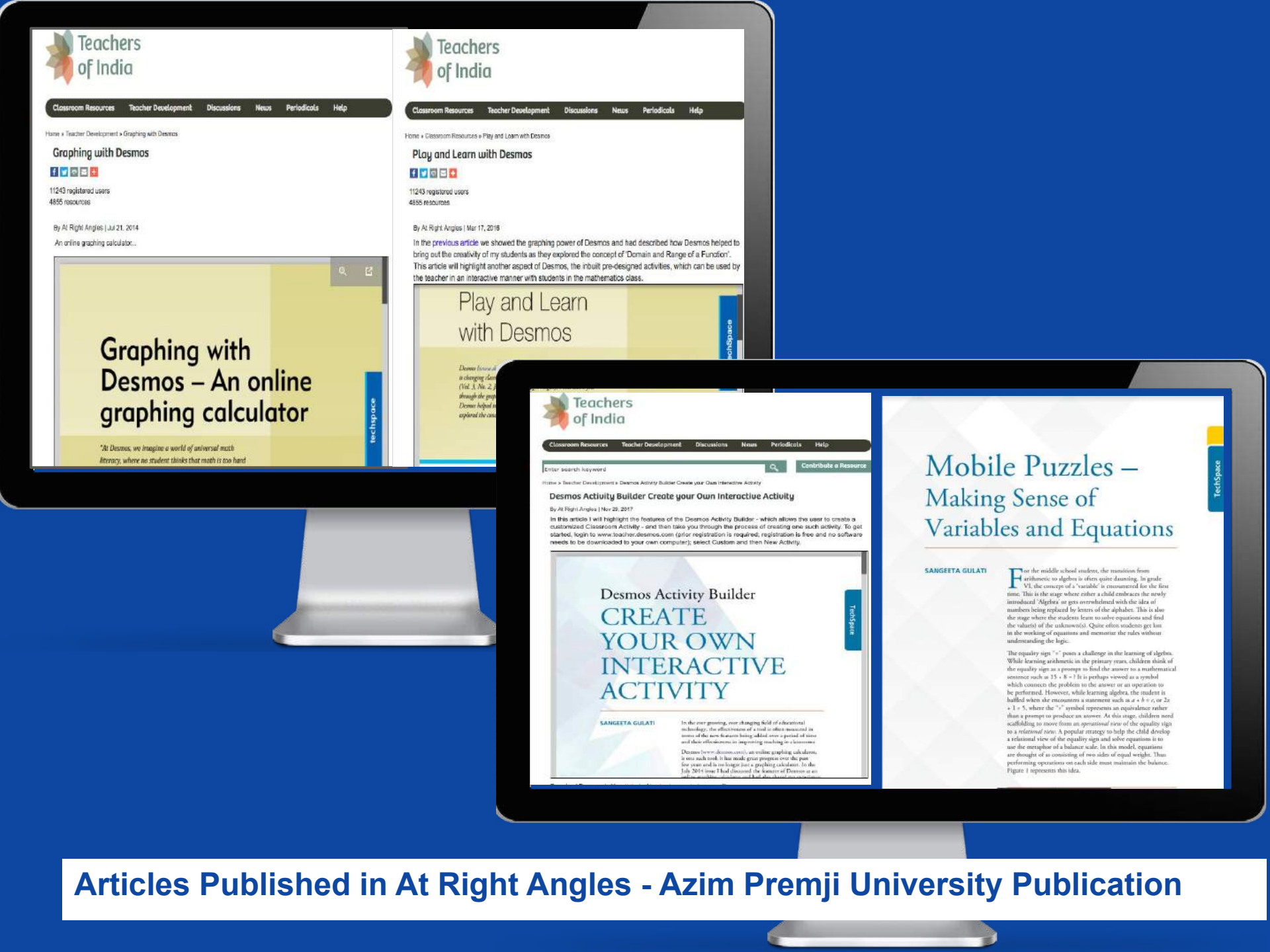
100
SANSKRITI
Made by Narayani Bhatia- Class XI

Desmos Classroom Activities

Desmos for Remote Teaching & Learning





Articles Published in At Right Angles - Azim Premji University Publication

Fulbright Distinguished Award in teaching 2011

Action Research :

"Use of Technology in Teaching and Learning of Mathematics"

Dynamath

home

Welcome to Dynamath...Make Maths Dynamic for your students!

This wiki was started under the Fulbright Distinguished Award in Teaching 2011 awarded to Sangeeta Gulati, Sanskriti School, New Delhi , India.

A big thanks to the **US States Department** for this honor and also to the **Office of International Initiatives, College of Education ,University of Maryland** for supporting me in my endeavor.

On this page you will find a Compendium of "LiveBinders" on topics ranging from Ratio and Proportion, Linear Equations,Geometry ,Pythagoras Theorem,Probability,Calculus and much more.

These "LiveBinders" are collection of Interactive lessons, YouTube and other Videos, enriching lesson plans which will enable any Math teacher to enhance his or her lesson.The continually growing collection has been compiled keeping in view the curriculum followed in many Indian schools at Middle and Secondary level but it is a good resource for all Math teachers.

Follow the Navigation bar on the right to find some more enriching material that will help you in your classroom.

Search

Learn with GeoGebra

- Geometric Wonders
- Middle School Geometry
- Pythagoras Theorem
- Linear Programming
- Pre Calculus and Calculus
- Inverse t- functions
- Google Classroom and GeoGebra

Maths and Art

- Math meets Art with Desmos

Learn From Your Mistakes

- Presentation

Math Assignments

- Smartskills

Technology Integration

- Learn from the experts
- All about SAMR
- Ideas for classroom
- Edmodo
- Chromebooks

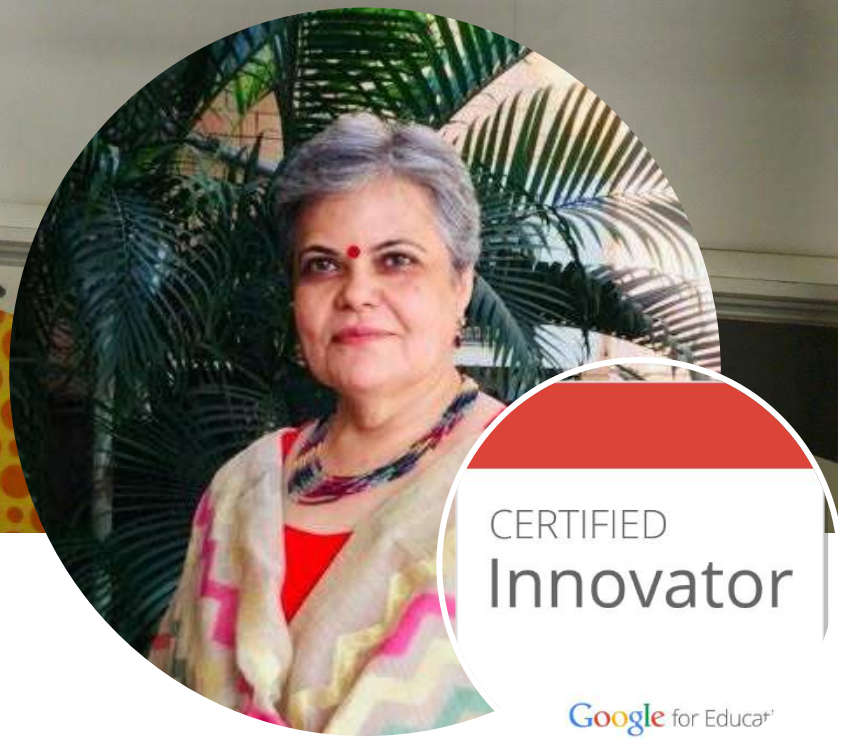
www.dynamath.wikispaces.com: No longer existing!

LiveBinders

Showcase	Geometric Constructions	Probabilty-- Simulations	Algebra & Integers	Ratio and Proportion
Tool Box for Teachers	Pythagorean Theorem	Exponents	Linear Equations	Games and Activities--Geometry
Calculus	Matrices and Determinants	Primary Maths	Relations and Functions	Maths Assignments--XII
Teaching with Technology	Trigonometry	ATCM TIME	Maths Club	

A Compendium of Online Resources

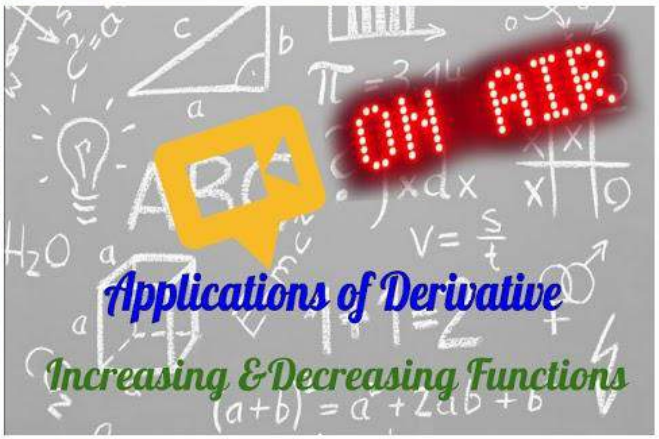
Google Teacher Academy
I am a Google Certified Teacher

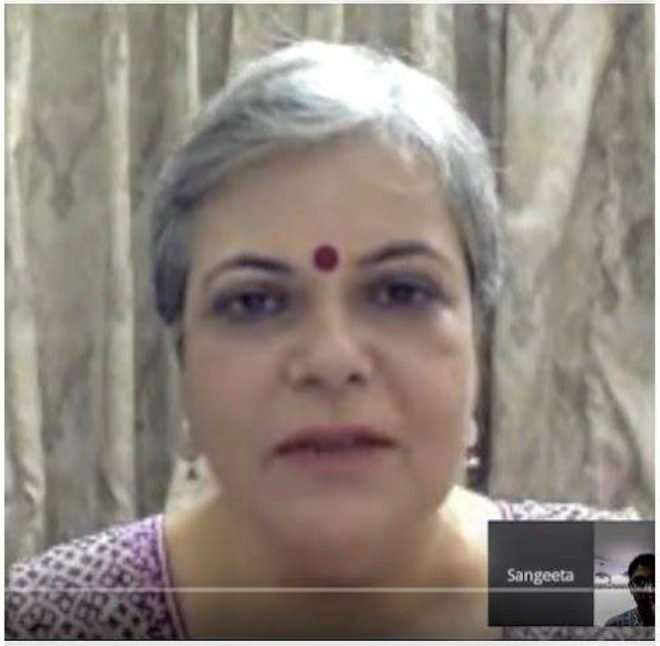

CERTIFIED
Innovator
Google for Educat

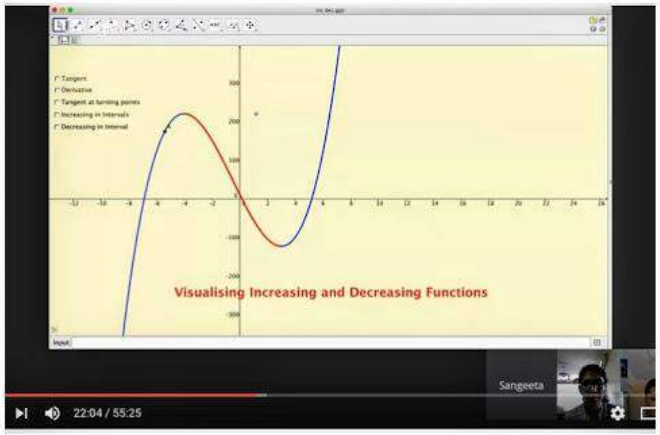
2014

Sanskriti School adopted Google Workspace for Education in 2015

“If we teach today as we taught yesterday, we rob our children of tomorrow”- John Dewey







Teaching and Learning Maths during summer break of 2017

2017!

Apr 21

Ma'am what would be the equivalence class in this case?

Z of Integer
he equivalen

Screen Shot 2017-04-21 at 8.46
Image

2 class comments

Sangeeta Gulati Apr 21

Equivalence Class of 1 = { b: 1-b is divisible by 3}
This is same as all values of b : 1-b =3k , consider k= 0,
[1] = { ...., -8,-5,-2,1,4,7,...}

Apr 22

Thank you ma'm!

Apr 7

Ma'am can you post the relations ppt which contains the (a,b)R(c,d) questions.

Sangeeta Gulati Apr 8

Added it under the 'About' tab

Sangeeta Gulati
Apr 3

Probability

Due Apr 6

15 DONE

0 NOT DONE

Quiz

This quiz will help you assess your level of preparation and understanding of the chapter.Work out the questions on paper , this may take you almost an hour or more to do.So start when you are ready. Note that you can attempt it only once. You will get your scores and feedback once I have reviewed it.

Probability
Google Forms

View responses in Sheets

How well prepared are you for Monday

Sangeeta Gulati May 6 (Edited May 6)

Select the choice that works best for you. Let me know as a comment if you want to share any c

💯%

😰

👍👍👍

👍

My confidence level in Continuity and Differentiability is

0 Turned in | 1 Assigned | 11 Returned

★★★★★ 5

★★★★ 5

★★★ 1

★★ 0

★ 0

How well prepared are you for Monday Test?

0 Turned in | 3 Assigned | 9 Returned

💯% 2

😰 1

👍👍👍 5

👍 1

Proud to be a Teacher, Innovator & Trainer

SOCIAL
DIGITAL LEADER
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RKSHOP 20

LEADING CHANGE IN CHANGING TIMES

Learn & Share

Google Teacher Academ

IMI

SKETCHPAD
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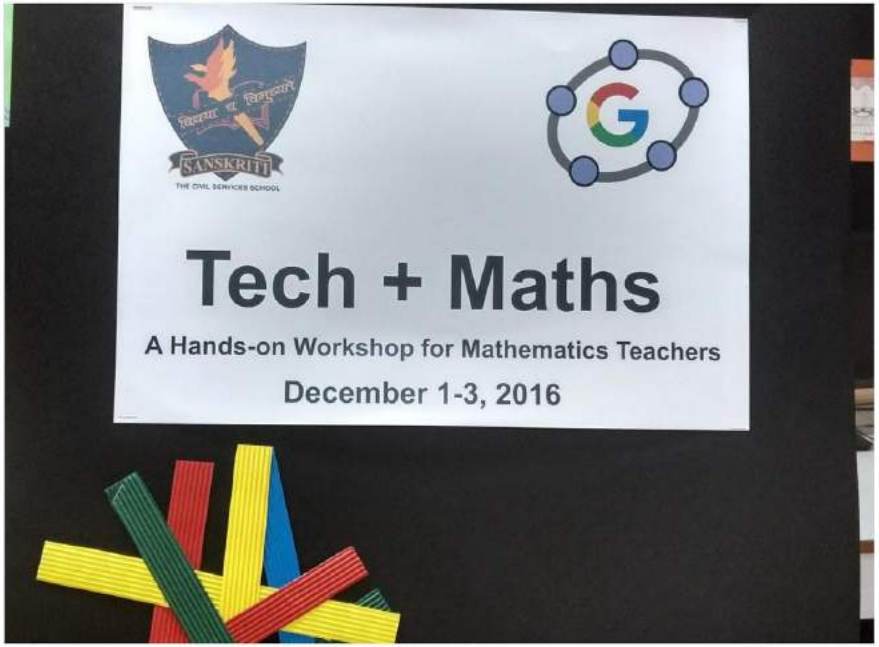
BRITISH COUNCIL
CONNECTING CLASSROOMS
CONTINUING PROFESSIONAL DEVELOPMENT OF TEACHERS:
FOCUS ON CORE SKILLS PEDAGOGY
CASE STUDY PRESENTATIO
AS PART OF
09 July 201

Teacher Training Sessions


SANSKRITI
THE CIVIL SERVICES SCHOOL
Tech + Maths
A Hands-on Workshop for Mathematics Teachers
December 1-3, 2016

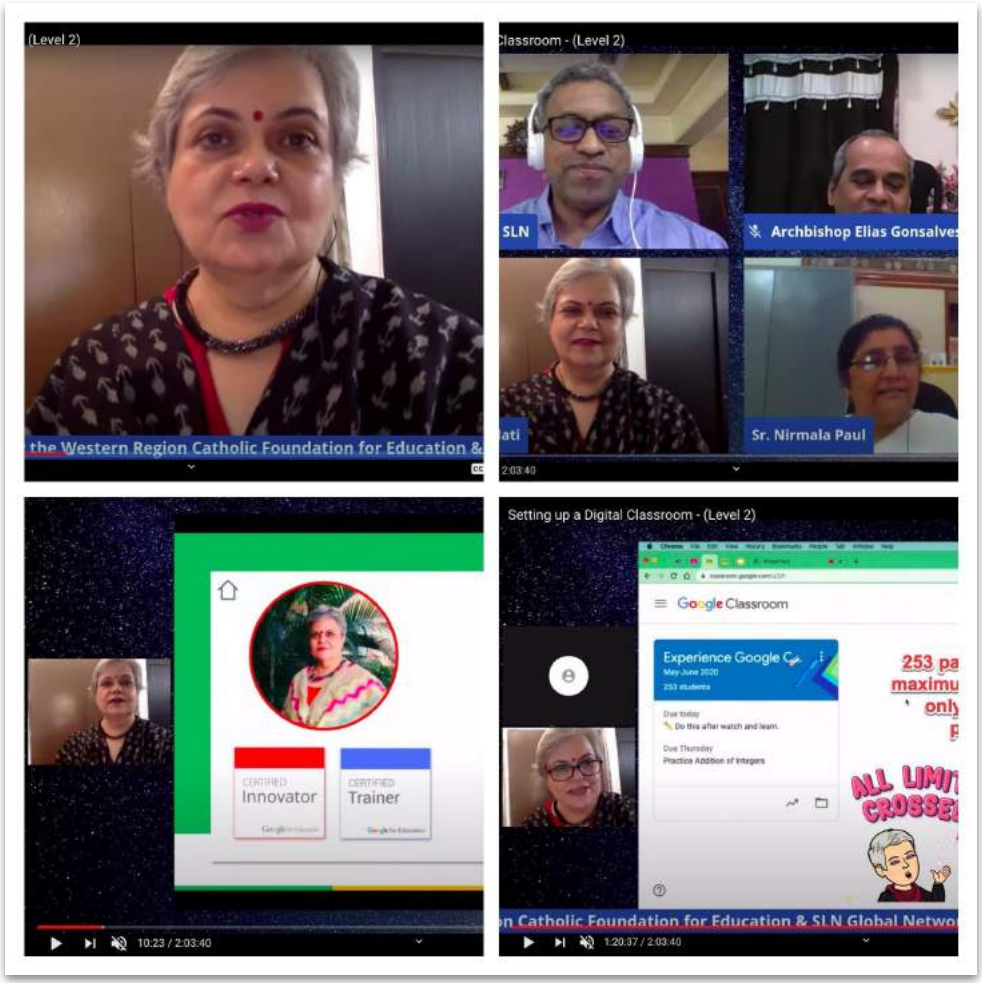
Create, Visualize and Explore with GeoGebra & Desmos
Create, Visualize and Explore with GeoGebra & Desmos
SANSKRITI
THE CIVIL SERVICES SCHOOL
SANSKRITI SCHOOL
November 27 & 28, 2015
is workshop is supported by the grant under the program Te[a]ch from Google received by Sangeeta

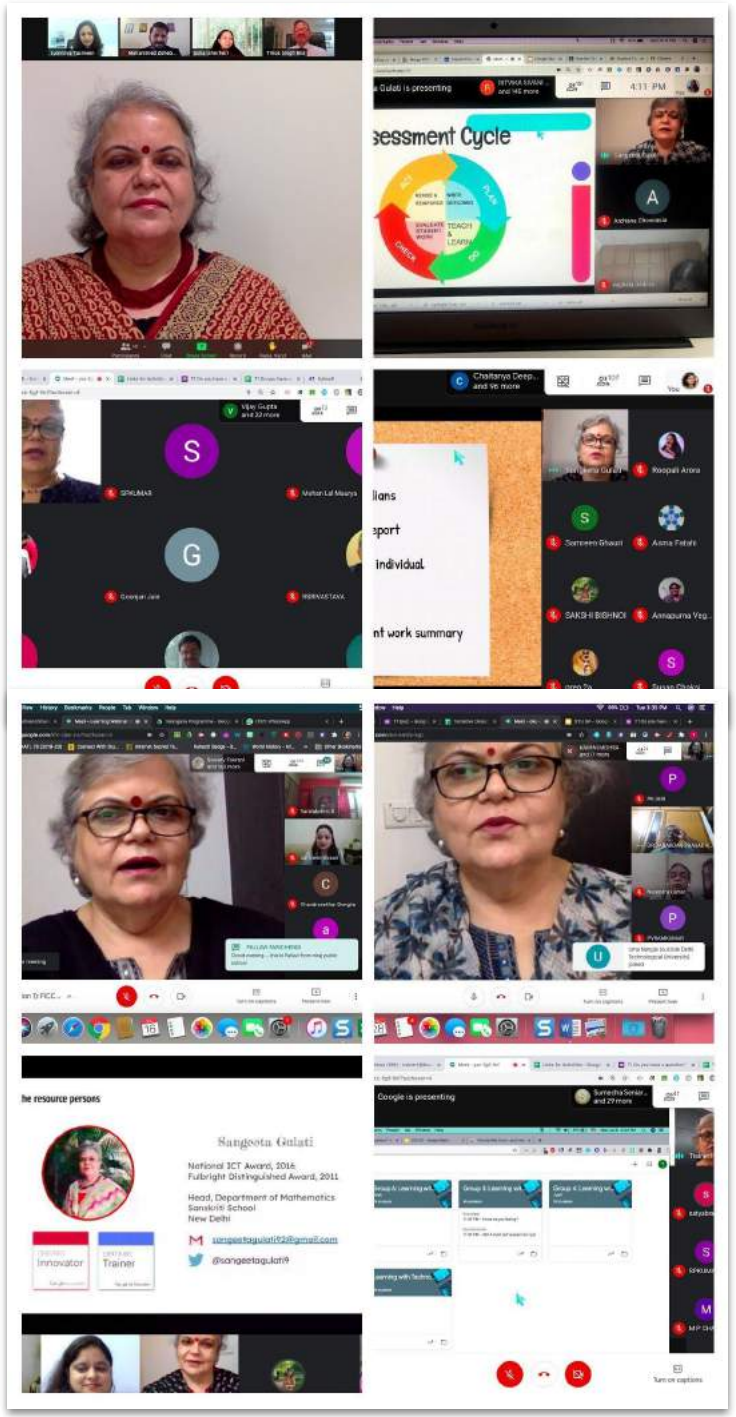
Tech + Maths

Google Apps for
Education (GAfE)
Integrating Technology in
Education - September 12, 2016

#TECH2018

March 2020 onwards...





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Sr. No.	Pedagogical Intervention	
1	PLANNING	Creating less learning
2	DELIVERING	Managing st
3	ASSESSING	Designing or
4	COMMUNITY ENGAGEMENT	Engaging wi wellbeing of

Participate and benefit from the
strategies for modern pedagogy

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CONTACT:

Sakshi Bishnoi
sbishnoi@google.com

Bangalore Sahodaya Schools Complex Association

Online Workshop

on

"Create,Visualise and Explore

with GeoGebra and Desmos"

Mode: Zoom App.

Duration: 1.30 hours

Date: 25h July, Saturday,

3.00 pm – 4.30 pm

LINK FOR THE QUESTIONNAIRE

https://docs.google.com/forms/d/e/1FAIpQLSeWbc9v5LBp45kVbzEhxARMS2HHvv7nZmqS8qOcSYYqbdxR8Q/viewform?usp=sf_link

SPEAKER

Ms Sangeeta Gulati
Head of Mathematics Department
Sanskriti School, New Delhi

The Session will be live on Sahodaya Facebook Page.

Kindly join us at 3.00 pm..

SAHODAYA FACEBOOK LINK -
https://www.facebook.com/bangalore.sahodaya.3
SAHODAYA YOUTUBE LINK -
https://www.youtube.com/channel/UC0psVxz6P4xch2ZyzNzjzLg?view_as=subscriber

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COVID - 19
and Learn at Home

BINAR

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th Google Docs

sessment for Learning
h Google Forms

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Live interaction on

Do More With Slides (Hindi)

4:00pm - 5:00pm
09 October 2020

Speaker

Ms. Sangeeta Gulati
National ICT Awardee, Sanskriti School

ion visit: https://ciet.nic.in/pages.php?id=webinar

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1800112199
NCERT Official
Jio TV
Tatasky Channel #756
Airtel Channel #440
Videocon channel #477

The Anywhere School

India: Digital Learning - The New Frontier in Indian Education

11:25 AM - 12:00 PM

Sanjay Gupta Manoj Ahuja Dr. Biswajit Saha Sangeeta Gulati Dr. Arunabh Singh Aditya Natraj

Digitisation has the potential to transform India's education system & help create equitable access to quality education for every student. Join us to hear actionable insights from industry leaders implementing the change.

Google for Education

Language · English

Up next

Thailand: Enabling Interactive Learning in the New Normal

12:00 PM - 12:30 PM

India: Digital Learning - The New Frontier in Indiar

11:25 AM - 12:00 PM

Sanjay Gupta Manoj Ahuja Dr. Biswajit Saha Sangeeta Gulati Dr. Arunabh Singh Aditya N

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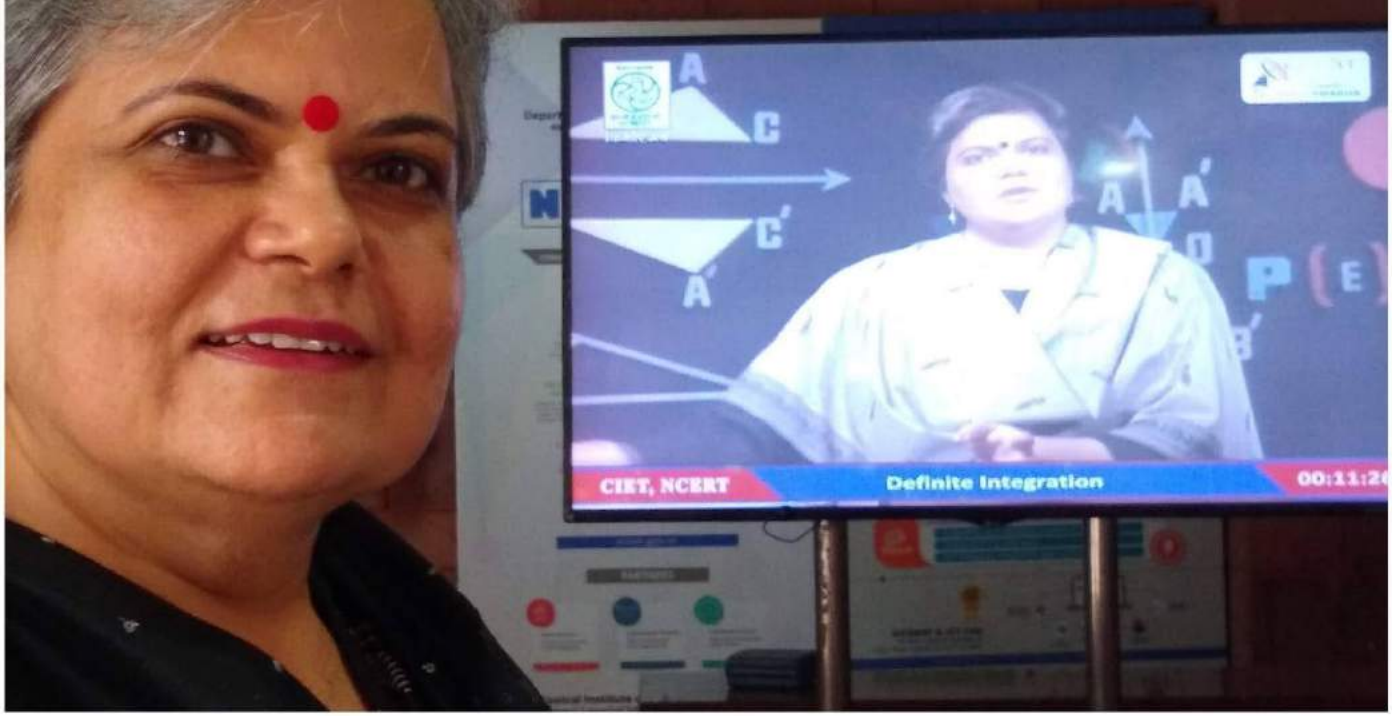
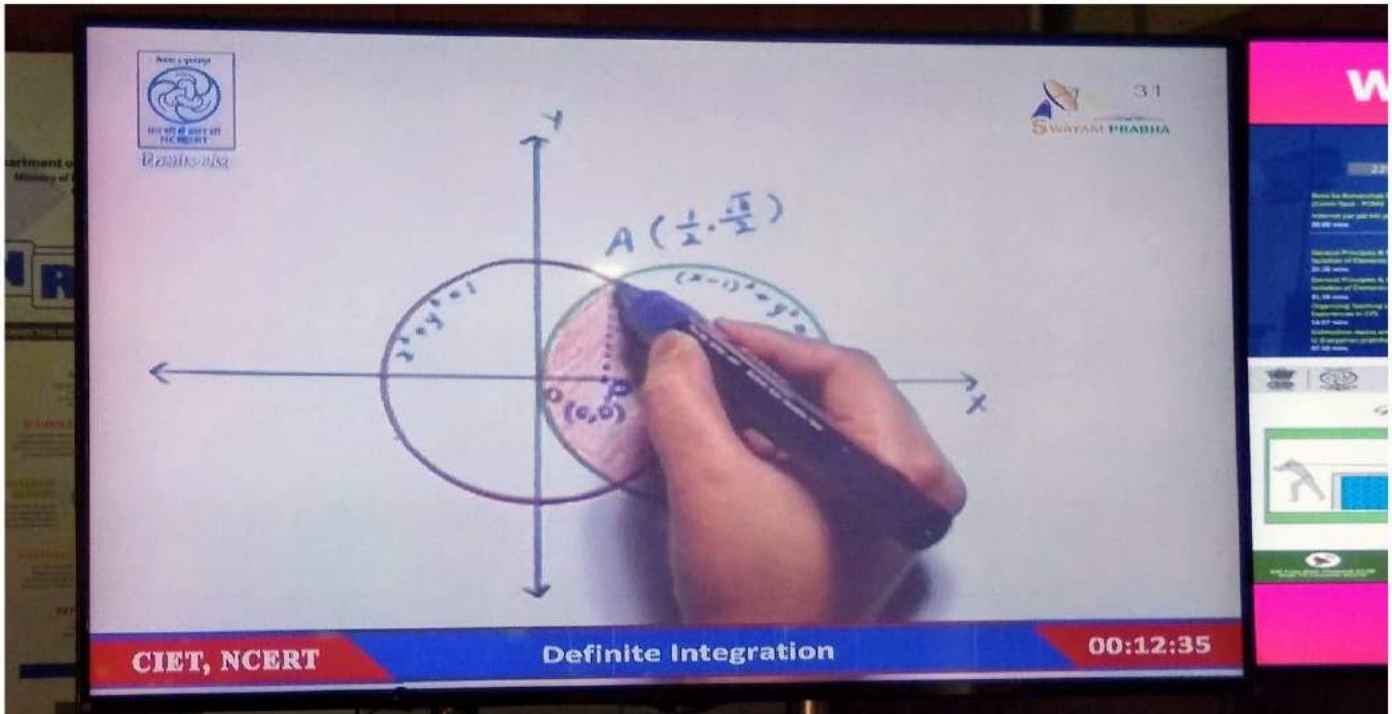

CIET, NCERT
Definite Integration


SWAYAM PRABHA
CIET, NCERT
Definite Integration
00:12:35

ICT Curriculum
NCERT-New Delhi
02.10.17-06.10.17

Empower Inspire Share Learn

LEADER

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AND THE JOURNEY
CONTINUES...
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Ms Sangeeta Gulati

National ICT Award,2016
Fulbright Distinguished Award, 2011
Head, Department of Mathematics
Sanskriti School, New Delhi

Email: sangeetagulati92@gmail.com
Twitter : @sangeetagulati9

Google for Education
Certified Innovator

Google for Education
Certified Trainer

Contributions as a Resource Person

National Council of Educational Research and Training:

Development of E content for higher secondary, Maths - November,2016

Development of E content for primary classes, Maths - August,2016

Subject matter expert to develop course modules for MOOCs (SWAYAM) ,Senior Secondary School Education,July 2016

Development of the ICT kit for secondary school mathematics teachers,2013

ICT Curriculum Development workshop at CIET, NCERT in May 2013

Technology and Innovation in Mathematics Education (TIME), IIT Powai

Presented papers on 'Use of Dynamic Geometry Software' and 'Online Resources' at the biennial event TIME, IIT , Powai in 2007, 2009, 2012, 2013,2015.

Hands on workshop on GeoGebra and Geometer's Sketchpad conducted at Professional Development and Technology Orientation at Powai, Indore, Ahemdabad

Ramanujan Foundation for Initiatives in Mathematics Education (RFIME)

Hands on session on GeoGebra and Desmos during workshops “Empowering the Mathematics Teacher: Innovative practices to enliven the mathematics classroom” -since 2012

Google, India

School Leadership Summit 2016 was hosted at Sanskriti School in collaboration with Google, India on Feb 6, 2016.I shared the innovations done in my classrooms and highlighted the role of Google Educator Group (GEG) in supporting the educators all across India.

GEG Lightning Talk on use of Google Apps for Education and Google Classroom to the team from NCERT at the office of Google, New Delhi on October 20, 2015

On Teachers Day(2015), I received recognition from Google India Blog

Google Educator Leader, Delhi