



TEACHING TOOLS FOR ECONOMICS

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The Power of Teaching Tools in Economics



Simplifies Abstract Concepts

Transform complex economic theories into visual, understandable formats that students can grasp immediately.

Abstract concepts, such as market equilibrium, elasticity, and consumer behaviour, become tangible through interactive demonstrations.



Enhances Student Engagement

Attention and maintain interest throughout lessons.

Students become active participants rather than passive observers.



Connects Theory
with
Real Life

Bridge the gap
between textbook
concepts and
real-world
applications.

Students see how
supply and demand
affect daily purchases,



Facilitates
Collaborative
Learning

Encourage
peer-to-peer
learning and critical
thinking through
shared digital
workspaces.

Students can work
together on



Saves Time and
Effort

Eliminate the
time-consuming
process of drawing
complex graphs by
hand.

Teachers can focus
on explaining
concepts rather than

These teaching tools represent a paradigm shift in economics education, moving from traditional chalk-and-talk methods

to dynamic interactive learning environments that prepare students for the modern economy

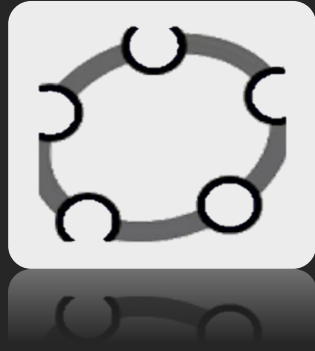
Comprehensive Teaching Tools for

Economics

Tool	Best Use in Economics	Level	Free/Paid
GeoGebra	Drawing demand–supply, cost curves, production & consumption graphs	School (Class 11–12), College	✓ Free
Desmos	Simple graphing of demand, supply, elasticity; easy for students to explore	School, College	✓ Free
Google Sheets / MS Excel	Charts, bar graphs, line graphs, data analysis (e.g., GDP trends)	School, College, Research	✓ Free (Sheets), Paid (Excel)
Tableau Public	Creating interactive dashboards with real economic data	College, Research	✓ Free (Public version)

Comprehensive Teaching Tools for Economics

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FRED (Federal Reserve Economic Data)	Graphing global indicators (GDP, inflation, interest rates)	College, Research	 Free
R (with RStudio)	Statistical graphs, econometrics, time series	College, University, Research	 Free
Python (Matplotlib, Plotly, Seaborn)	Custom graphs, advanced data analysis, simulations	College, University, Research	 Free
Symbolab	Solves math/equation steps (helpful for economics math: elasticity, cost functions, derivatives)	School, College	 Free (basic), Paid (Pro)
	Lesson plans, videos, games,	School (K–12),	



GeoGebra

Session

Overview

What is GeoGebra



Why use it in Economics



How to use GeoGebra



Q&A and Wrap-Up



GeoGebra

GeoGebra is a ~~free~~², interactive, and dynamic software designed mainly for



- ❖ Geometry (drawing shapes, graphs, curves).
- ❖ Algebra (solving equations, working with functions).
- ❖ Calculus (slopes, derivatives, integrals, limits).
- ❖ Statistics (data plots, probability distributions) and integrates them into one visual platform.

Why Choose GeoGebra for Economics?

- ✓ Economics is Graph-Intensive
- ✓ Law of Variable Proportion / Diminishing Returns
- ✓ Shows Market Equilibrium
- ✓ Draws Demand and Supply curves quickly
- ✓ Plots Cost, Revenue, and Profit Functions

Features of GeoGebra

GeoGebra was created to help students gain a better understanding of Economics.

We can use it for active and problem-oriented teaching.

Ready to use applets are available.

Teachers and students can build animations, simulators.

Availability of GeoGebra

GeoGebra is open-source software under the GNU General Public License and freely available at

www.geogebra.org

You can access the online version:

<https://www.geogebra.org/classic>

OR

Download as desktop app:



Thank you



Dr. Shashi Ranjan, Academic Consultant, CIET, NCERT

Orientation Programme of State Resource Groups (SRGs) on Development of **eContents for DIKSHA**



Phase 1
15th -19th September, 2025

Phase 2
13th -17th October, 2025



Graphing



Scientific



Four
Function



Matrix



Geometry



3D

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Date-18th September, 2025

-Using Desmos for Visualizing Accountancy Concepts

Session Overview

- **Need for Desmos in Modern Classrooms**
- **Introduction to Desmos**
- **Features of Desmos for Teaching**
- **Applying Desmos in Accountancy**
- **Live Demonstration: Desmos in Action**
- **Hands-on Practice**



Using Desmos for Visualizing Accountancy Concepts

Need for Desmos in Modern Classrooms



Desmos



Helps

- Interact with real-time data
- Replace chalk-and-talk with dynamic graphs, sliders and simulations

- Experiment with variables
- Instant feedback

Application of concepts

Discussion, prediction and exploration

- Free to use, no license fees.
- Runs on any browser or mobile app.

Integration of
Technology in
Teaching-Learning

Experiential &
Hands-On Learning

Competency-Based
Assessment

Active Participation
& Engagement

Equity &
Accessibility

-Using Desmos for Visualizing Accountancy Concepts



- Type of site:** Online graphing calculator (also mobile app).
- Owner:** Desmos Studio PBC.
- Founded:** 2011 by *Eli Luberoff* (Math & Physics, Yale University).
- Programming:** TypeScript, JavaScript, HTML, CSS.

Additional Tools Offered



Graphing



Scientific



Four
Function



Matrix



Geometry

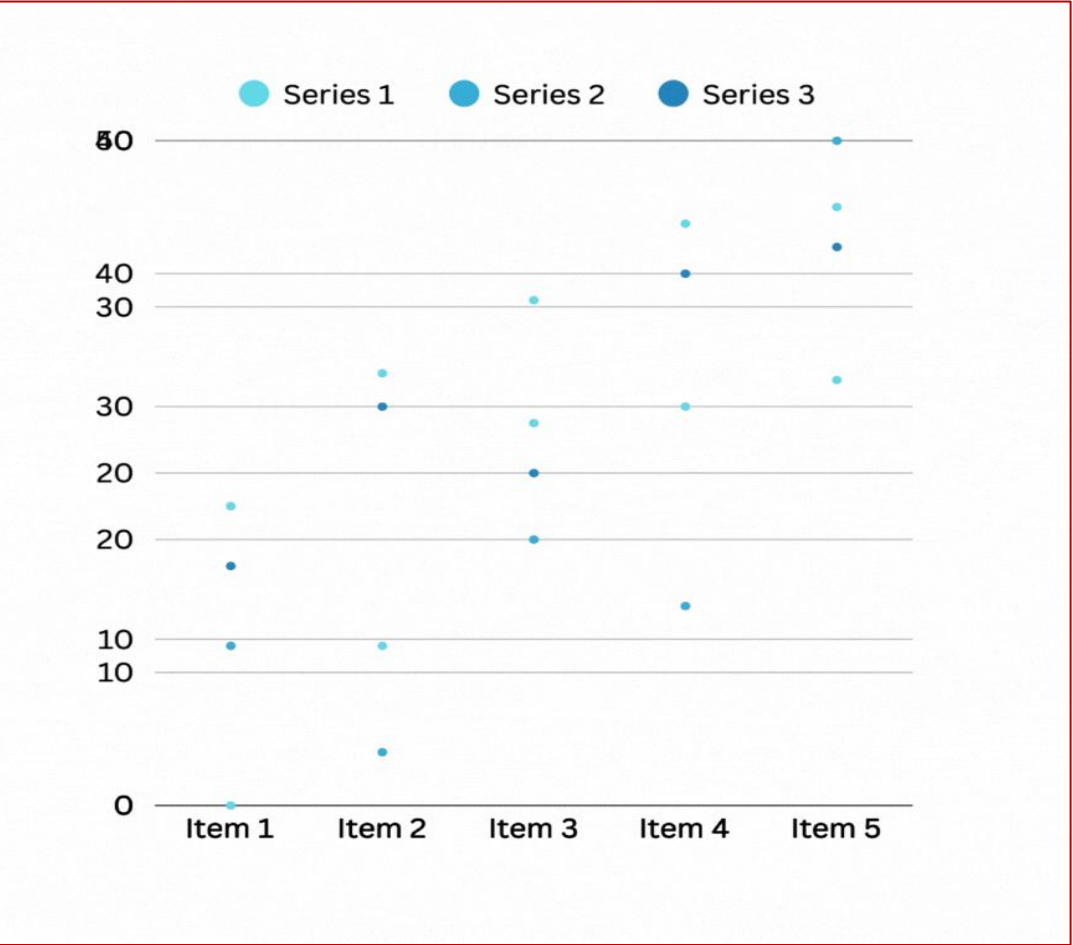


3D

Website: www.desmos.com

-Using Desmos for Visualizing Accountancy Concepts

Graphing Calculator



Sliders “What-if” analysis.



Lists and Tables

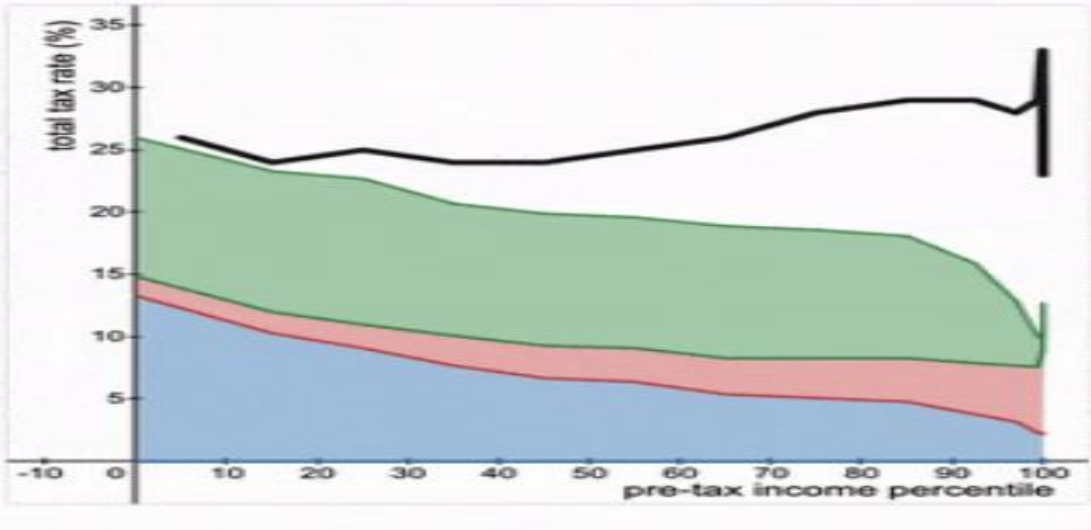
x_6	y_6
0	100 000
1	82 000
2	64 000
3	46 000
4	28 000
5	10 000

Expression Cells

Desmos Expression Cells interface showing two input fields:

- Input 1: $(40\,000, 70\,000)$ with a checked checkbox and label **CR3**.
- Input 2: $(30\,000, 80\,000)$ with a checked checkbox and label **CR4**.

Toggle Effect



Multi-device Support



Concepts

Accountancy Education



Accounting software = practical skills (*how to record*).

TOP ACCOUNTING SOFTWARES

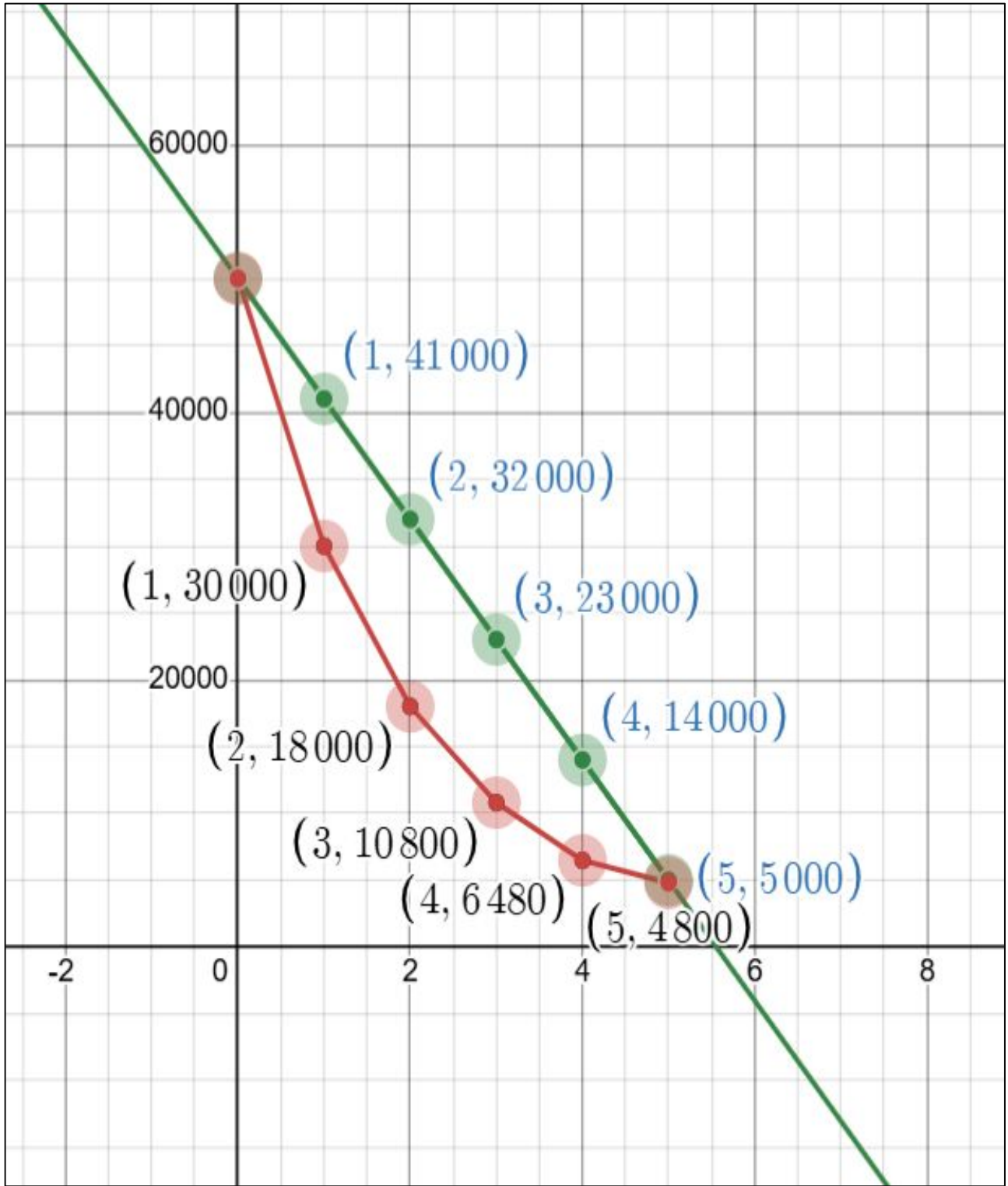
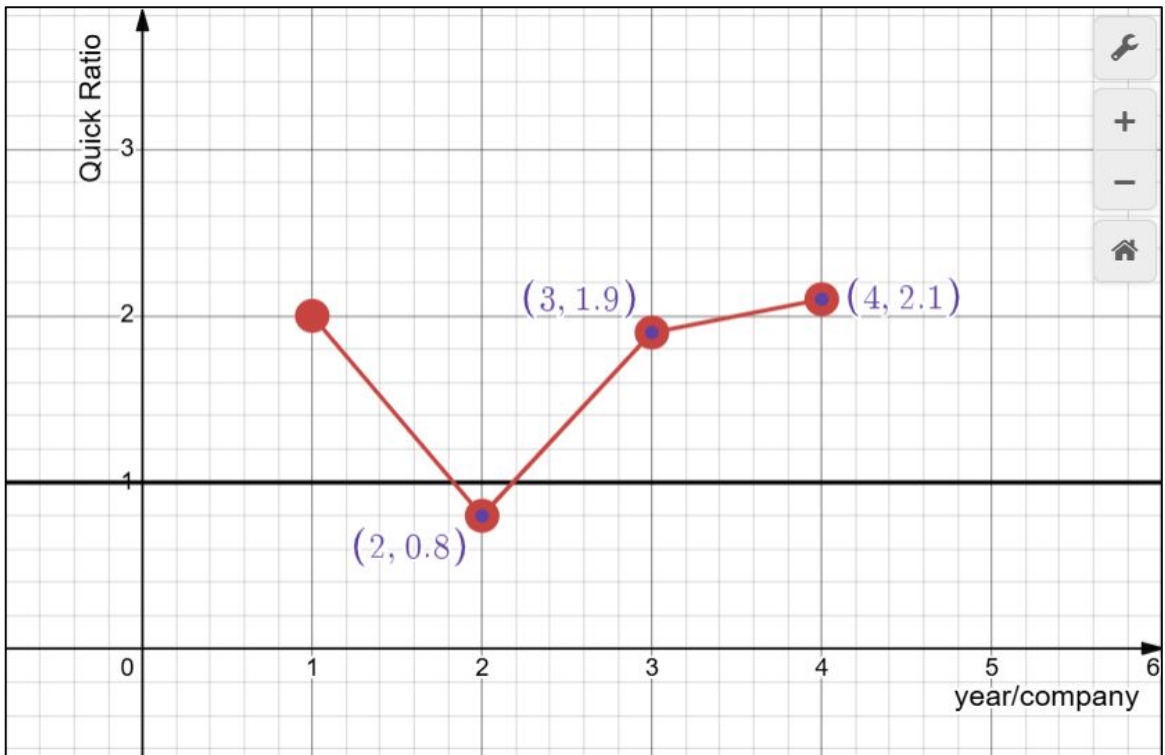
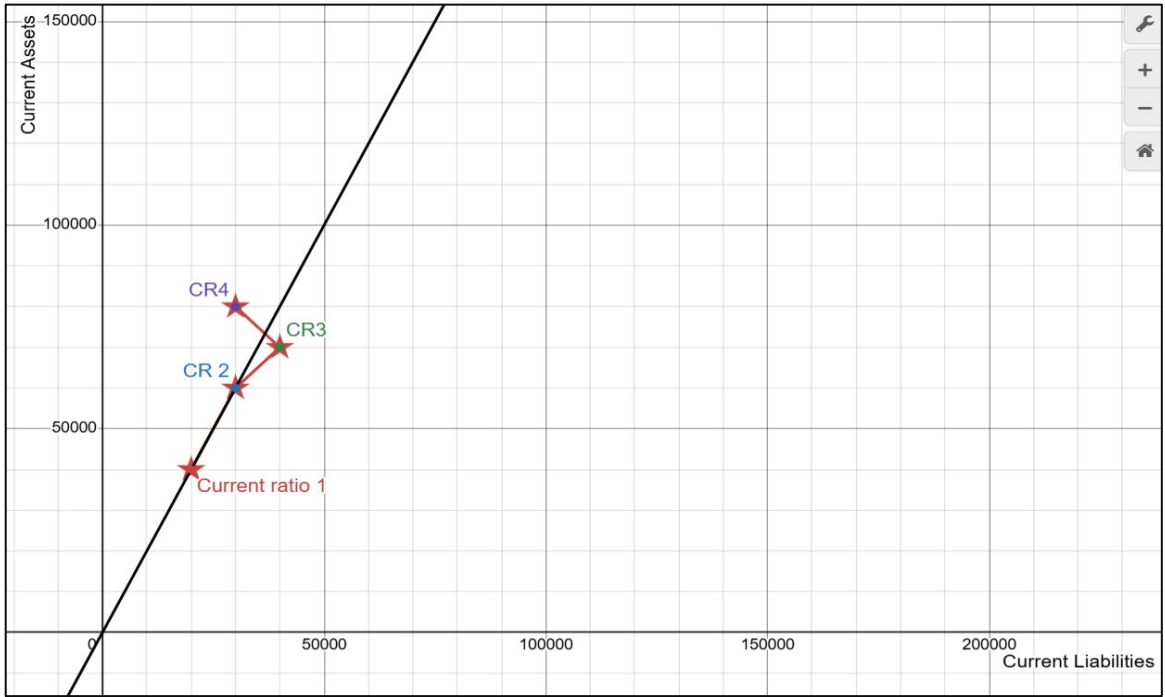
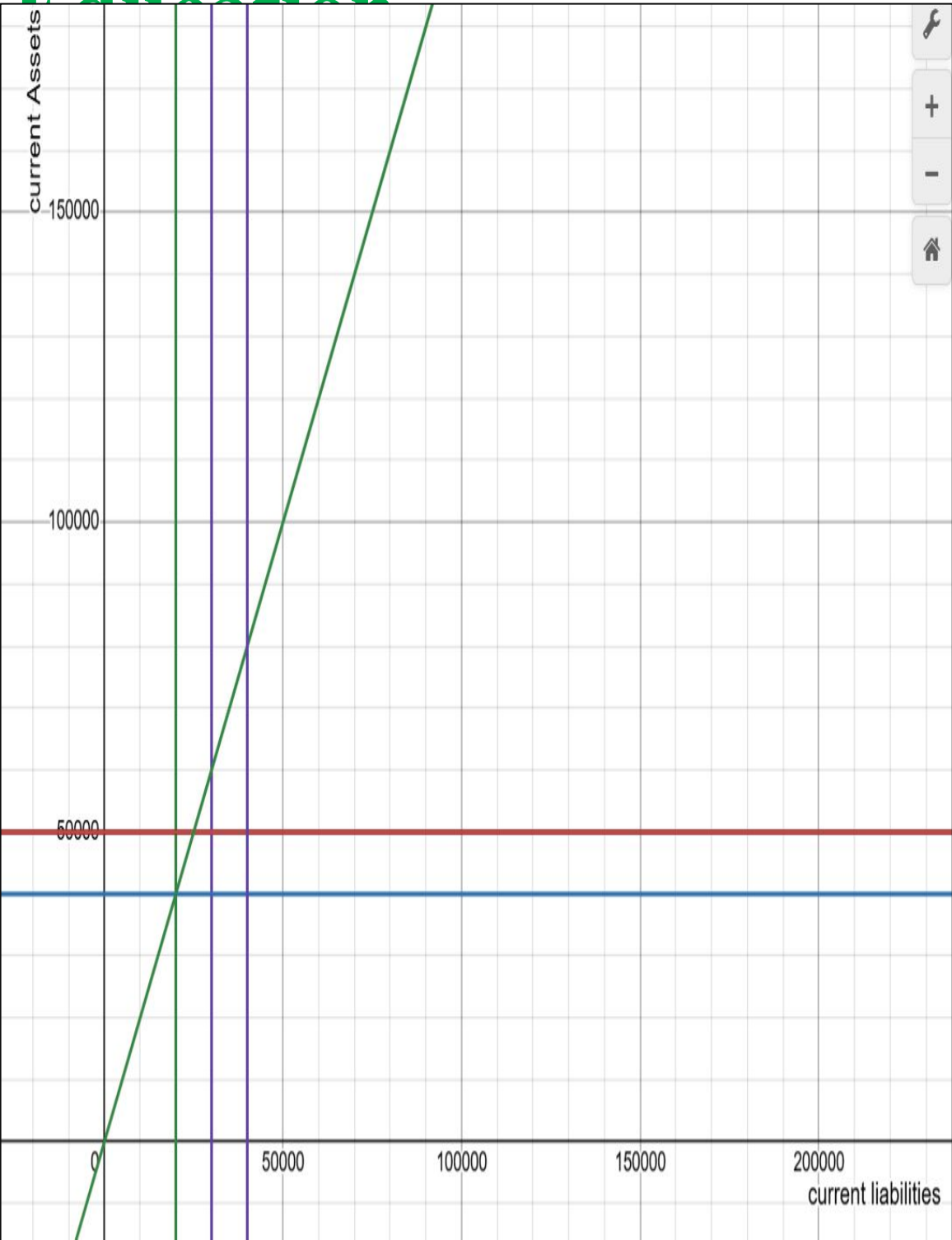


-Using Desmos for Visualizing Accountancy Concepts

Applying Desmos in Accountancy

Desmos = conceptual clarity (*why it behaves this way*).

Education



-Using Desmos for Visualizing Accountancy Concepts

How to use Desmos Graphing Calculator

- 1. Open any browser and go to www.desmos.com**
- 2. Click on ‘Graphing Calculator’**
- 3. Create new graph by typing expressions in the expression bars.**
- 4. Name your own graph and plots.**
- 5. Login to save you work and share with the help of permalink.**

-Using Desmos for Visualizing Accountancy Concepts



Live Demonstration-

- Login to Desmos
- Explore the Interface
- One Quick Demo

Hands-On Activity

Visualizing Depreciation in Desmos

- Straight Line Method (SLM)
- Written Down Value Method (WDV)
- Comparison
- Decision-Making Insight

-Using Desmos for Visualizing Accountancy Concepts

