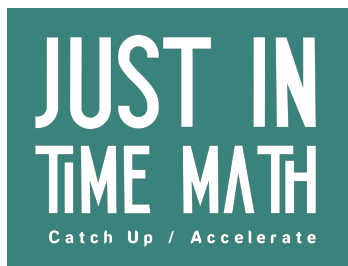


# AB 1705 got you down?

## Help your students catch up quickly on prerequisite knowledge.



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**Executive Director**  
**National Laboratory for Education Transformation**

## How many of you:

- **Feel your pre-calc &/or calculus courses today (post AB 705/1705) are more challenging due to a wider range of student preparation?**
- **Have enough time in your class to give enough individualized support (maybe through coreqs)?**
- **Have an effective way to identify individual student gaps?**

# California Corequisite Initiative (CCI)

- ❖ With AB705 and 1705 a new world
  - ❖ On the “net” better for our students in terms of completion
  - ❖ On the “ground” different students are in front of us – are we ready?
- ❖ To co-develop (with faculty) math tools and strategies to better support CCC through the Chancellor’s Office.
- ❖ Cornerstone is Just In Time Math - a competency-based math platform that effectively locates students in “the math space.”
- ❖ Campuses gain support through tools and communities of practice to support students in Transfer-Level Math.

# Overview – JITM

- ❖ Used at colleges, universities, and high schools: ~ 10,000 students
- ❖ Competency/Micro-Competency based, short formative assessments, OER
- ❖ Efficient for what students already know and where they need support/instruction
- ❖ Numeracy - Calculus (and Stats) + contextualized WorkReady Math & Science
- ❖ Not a product, but a smart library/platform that is customizable and curatable
- ❖ 15 CA CCs are actively using it in a variety of settings
- ❖ Key: Student and Instructor at center
  - Visibility and efficiency, differentiation and personalization of support

# Current Participating Campuses

De Anza College (Auto & Nursing)

Chaffey College

College of the Sequoias

Cuesta College (Chemistry)

Glendale College

Golden West College

Imperial Valley College

Irvine Valley College

LA Mission College

LA Valley College

Lake Tahoe Community College

MiraCosta College

Palomar College

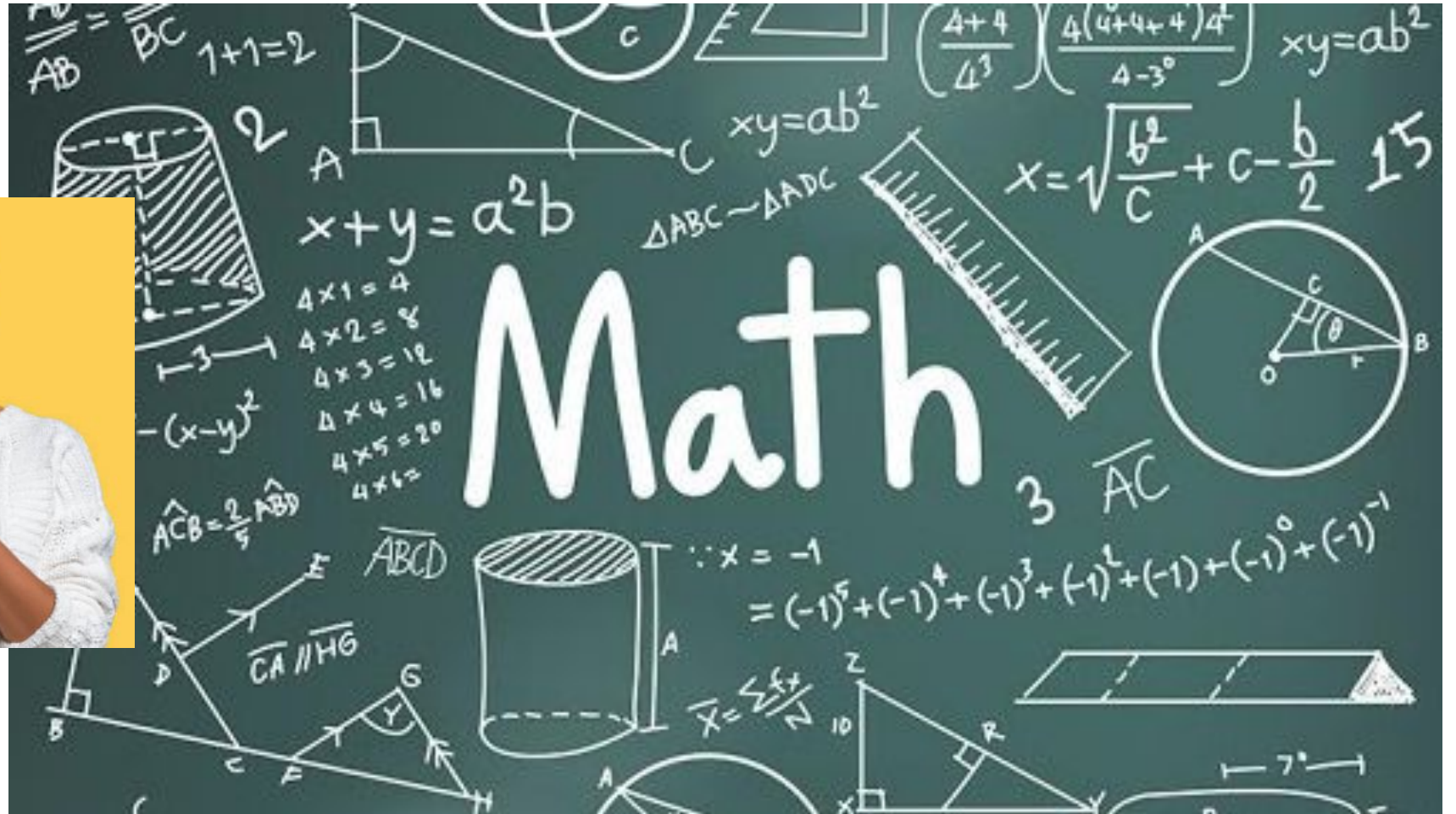
Riverside City College

San Diego City College (Auto)

Sierra College (Nursing)

Southwestern College

Victor Valley College



# How it Works

# Student View

Demo Section: Math Phase 1 and 2 Combined

[hide toc](#) [curate](#)

Demo Section: Math Phase 1 and 2 Combined - Table... 38.52%

## C1: Integers and Rational Numbers

<b>C1: Integers and Rational Numbers</b>	<b>33.33%</b>
<b>C2: Real Numbers</b>	
MC11: Identify Real Numbers	
MC12: Representation on number line	
MC13: Determining greater of two numbers	
MC14: Simplifying Numeric Expressions	
<b>C3: Exponents and Order of Operations</b>	<b>75.00%</b>
<b>C4: Variable Expressions</b>	
<b>C5: Linear Equations in One Variable</b>	
<b>C6: Linear Inequalities in One Variable</b>	
<b>C7: Translating Sentences into Equations</b>	

Competency1: Perform Operations with Integers and Rational Numbers

# Student View

Graph the linear equation using its x- and y- intercepts. Enter each intercept as an ordered pair of the form  $(x, y)$  with parentheses and a comma.

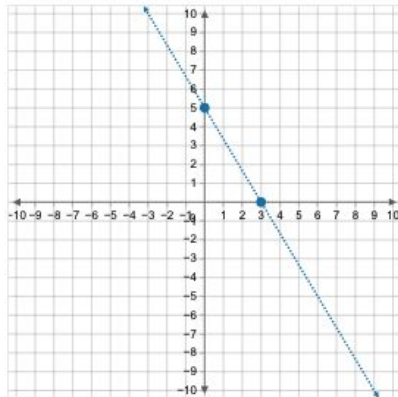
$$5x + 3y = 15$$

The x-intercept is  $(x, y) =$

The y-intercept is  $(x, y) =$

Correct answers:

Graph the linear equation by graphing its *x- and y-intercepts*.



1 of 5

Question 1

Question 2

Question 3

Question 4

Question 5

◀ Next ▶

# Student View

Ex 2: Graph a Linear Equation in Standard Form Using the Intercepts
Watch later Share

**Example:** Determine the Intercepts of a Line and Graph.

$$2x - y = 5$$

$x$	$y$	
$\frac{5}{2}$	$0$	$\rightarrow$ x-int: $(\frac{5}{2}, 0)$
$0$		

x-intercept  $\rightarrow y = 0$

$$\frac{2x}{2} = \frac{5}{2}$$

$$x = \frac{5}{2}$$

Watch on

# Faculty

What Would You Do?

MTH215-20992-2003: College Algebra and Trigonometry

curate edit show toc

Reports :: MTH215-20992-2003: College Algebra and Trigonometry

export

Name ▲	MTH215-20992-2003: Score	C1: Equations and... Score	C2: The Cartesian... Score	C3: Complex Numbers,... Score	C4: Quadratic Equations an... Score	C5: Functions and Their... Score	C6: Polynomials... Score	C7: Rational Expressions... Score	C8: Rational Exponents,... Score	C9: Exponen... Score
Class Average	87.55%	93.64%	86.67%	87.74%	40.00%	81.79%	89.64%	96.07%	94.29%	87.86%
Adams, Douglas	86.73%	100.00%	90.00%	80.00%	50.00%	68.00%	85.00%	90.00%	95.00%	80.00%
Allende, Isabel	93.11%	100.00%	100.00%	80.00%	42.00%	80.00%	90.00%	100.00%	95.00%	92.50%
Bellow, Saul	74.39%	80.00%	90.00%	80.00%	84.00%	92.00%	75.00%	80.00%	75.00%	77.50%
Bronte, Emily	63.33%	40.00%	60.00%	40.00%	35.00%	45.00%	50.00%	N/A	N/A	N/A
Camus, Albert	84.40%	100.00%	80.00%	90.00%	40.00%	64.00%	N/A	N/A	N/A	N/A
Caroll, Lewis	91.97%	100.00%	90.00%	80.00%	50.00%	96.00%	95.00%	100.00%	90.00%	87.50%
Faulkner, William	82.47%	90.00%	100.00%	70.00%	47.00%	68.00%	80.00%	90.00%	85.00%	77.50%
Greene, Graham	90.13%	90.00%	90.00%	80.00%	39.00%	84.00%	85.00%	100.00%	95.00%	87.50%



# Faculty View

California Corequisite Initiative

CCCCO Alg, College Alg and Trig Combined: Section Demirchyan

Reports :: CCCCCO Alg, Colleg... > C15: Composite Geometric Shapes and Three-Dimensional Figures

Name ▲	C15: Composite Geometric Shapes and Three-Dimensional Figures			MC83: Perimeter of 2-dimensional composite figures			MC84: Area of composite figures			M
	Score	KC Time	Resource Time	Score	KC Time	Resource Time	Score	KC Time	Resource Time	
Class Average	67.65%	01:56:40	00:20:26	54.44%	00:35:53	00:21:47	65.00%	00:29:04	00:03:13	84
1, Demo	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
1, Demo	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	41.75%	01:37:26	00:00:10	60.00%	00:35:43	00:00:05	20.00%	00:14:19	00:00:03	50
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	70.75%	01:16:23	00:00:42	20.00%	00:33:56	00:00:27	80.00%	00:28:21	00:00:15	83
	70.00%	05:58:53	00:02:18	60.00%	03:40:22	00:01:27	20.00%	00:43:51	00:00:42	10
	90.75%	00:55:46	00:05:35	100.00%	00:14:17	N/A	80.00%	00:18:02	00:03:07	83
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Expand columns to see more detail

# Ideas for implementation

- **JITM integrates directly into Canvas, with single sign-on**
- **Since this is “Formative” grading on Completion rather than “Performance”**
- **Faculty give extra credit, quiz score, or use during class**
- **Efficient way to use Support Course time and instruction**
- **Tutoring Center of Math Learning Lab is a good fit**

**Big idea: it's only works for faculty when  
students' scores are in there**

# Lesson Learned

- **Math Gaps are Individualized – Support Needs to Be As Well**
- **Some Students Have no Exposure, Others Just Need a Refresher**
- **Changing Faculty Practice is Difficult**
- **JITM Provides Good Insights, What You Do With It Matters More**
- **Early Faculty Used JITM to Have Students Remediate Themselves**
- **What We Thought as Simple (Canvas Integration) Can Make or Break Implementation**
  - **Onboarding, Structured Support, Check-Ins and Communities of Practice Helped**

# Big Picture - Equity

- **A tech tool, is only a tool, and what faculty do with it matters**
- **But: it does provide a scaffolding to differentiate support for students**
- **A lot of “missing knowledge” can be mitigated by short assessments and refresher videos**
- **Changes in viewpoint, pedagogy and student-facing resources and supports matters**
- **Gives faculty a more personalized view of assets and support needs in real time**
- **JITM platform creates a common understanding and communication tool among faculty, tutors, support, math lab, etc.**

# Questions & Thank you!

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