

# IMPROVING ALGEBRA 1 FOR BLACK AND LATINO STUDENTS

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BILL & MELINDA  
GATES foundation

## TODAY'S HOSTS



**Karen Johnson**  
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Coherent Instructional  
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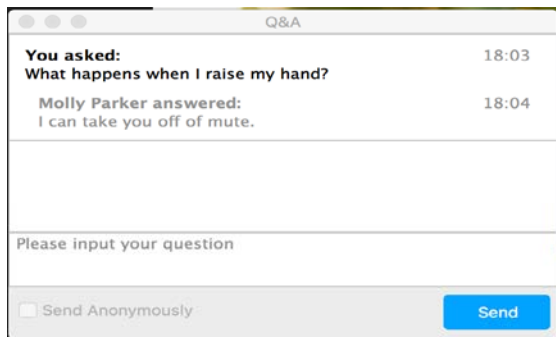


## BALANCE THE EQUATION: AGENDA

- **Re-inventing Algebra 1** (30 min)
- **Questions** (30 min)



## HOW TO SUBMIT A QUESTION



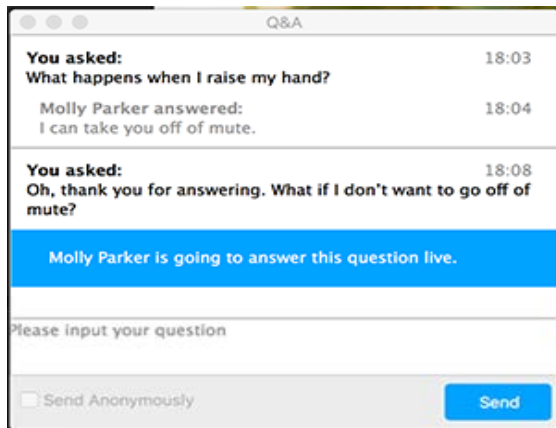
The screenshot shows a Q&A window with a title bar. The content area displays a question: "You asked: What happens when I raise my hand?" with a timestamp of 18:03. Below it is an answer: "Molly Parker answered: I can take you off of mute." with a timestamp of 18:04. At the bottom, there is a text input field with the placeholder "Please input your question", a checkbox labeled "Send Anonymously", and a blue "Send" button.

### ASKING

— Open the Q&A window, allowing you to ask questions to the host and panelists. *They can either reply back to you via text in the Q&A window or answer your question live.*

#### To ask a question:

1. Type your question into the Q&A box. Click Send.  
Note: Check Send Anonymously if you do not want your name attached to your question in the Q&A.
2. If the host replies via the Q&A, you will see a reply in the Q&A window.



The screenshot shows the same Q&A window as before, but with an additional notification. Below the first question and answer, there is a blue banner that reads: "Molly Parker is going to answer this question live." The question below it is: "You asked: Oh, thank you for answering. What if I don't want to go off of mute?" with a timestamp of 18:08. The input field, "Send Anonymously" checkbox, and "Send" button are still at the bottom.

### ANSWERING

— The host can also answer your question live (out loud). You will see a notification in the Q&A window if the host plans to do this.

### LIKING AND COMMENTING

— As an attendee you can also like or comment on other attendee's questions. This helps the host or participant identify popular questions, especially in a webinar with many attendees.

1. Click the thumbs up icon to like a comment.  
*Tip: The number beside the icon is the total number of likes the question has received so far.*

We asked 8th, 9th, and 10th grade students:

When you hear the word **mathematics**,  
what comes to mind?

“Difficult.”

8th grade student

“Challenging.”

9th grade student

“A lot of work.”

8th grade student

“Sometimes  
fun.”

10th grade student

## STUDENT ASSETS



### Building Their Own Support Teams

**"My uncle! He's one of the best people I know who's good at math... My friends. Usually if we all have a problem with the same math problem, we'll call each other."**

8th grader, when describing her important relationships for math



### Being Goal-Oriented

**"If you do well in math you'll do well in your career."**

10th grade English Learner, who wants to be an accountant



### Having a Strong Sense of Self

**"Math is my best and favorite subject because of my 3rd and 6th grade teachers... My mom was living on the streets with my little sister. And my plan since I was 11, once I get a job/place, is to take care of her."**

9th grader, with a strong sense of self and clear future ambitions

**Algebra 1 serves as a pivotal inflection point in students' overall mathematics pathway, as well as being a powerful on-track indicator of college readiness, it is important we realign the social and political narrative shaping mathematical education at this critical juncture.**





INTRODUCING

# Balance the Equation

A Grand Challenge  
for Algebra 1



**Aretha Franklin**

Singer - Pianist - Queen of Soul - Multiple Grammy Winner  
"Her music resonates, moves us, inspires, makes us believe. It's our Black American rights."

**Patrice Lumumba**

First Prime Minister of the independent Republic of the Congo  
"Without dignity there is no liberty, no dignity, and without independence there is no dignity."

**Wendie McDaniel**

THE ALPINE IS A POWERFUL  
"She is a powerful woman who is making and from the inside."

**Nicolas Guillen**

Hispanic figure of "Latin America" (Latin America) the Hispanic poet, writer and politician who was an influential campaign for social justice. His work has been translated into many languages and has been a source of inspiration for many people.

**Ida B. Wells**

Investigative journalist, reformer, suffragette leader  
"The way to right wrongs is to turn the light of truth upon them."

## BALANCE THE EQUATION: AREAS OF FOCUS

We have identified five **Areas of Focus** that have the highest potential to alter the experience and success of priority students. Our team will seek applicants that address one or more of these areas.



**Builds Out Support  
Systems**



**Improves  
Relevance of  
Algebra 1 Content**



**Elevates  
Understanding of  
Math Language**



**Empowers and  
Strengthens  
Teacher Practices**



**Develops New or  
Better Feedback  
Mechanisms**

## BALANCE THE EQUATION: OUTCOMES

### Key **Student** Outcomes

- Increased positive experience in mathematics classrooms
- Increased positive identity as mathematicians
- **Increased mathematics growth and proficiency**

### Key **Teacher** Outcomes

- Increased positive mindsets and beliefs about priority student mathematics learning
- Increased skills in adapting curricula and instruction to meet student needs
- Increased use of effective mathematics instructional practices



## Important Application Considerations

### The Organization:

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- Deep understanding of the assets of priority students and the barriers they face in today's education system
- Experience serving one or more of our priority students
- MLOs - We believe they are well positioned to meet the needs of our priority students
- Partnerships: We highly encourage organizations to partner

### The Solution:

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- Align with Focus Area(s)
- Align/Cohere with High-quality Core Curriculum
- Building both mathematical identities and increasing knowledge
- Supporting English Learners

### Pilot Study (Phase 2)

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- Solution could be ready to implement in US schools by Fall 2021



## BALANCE THE EQUATION: POTENTIAL SOLUTIONS

### Solutions Might Look Like...

- Expanding daily practices for productive mathematical discussions to build their mathematics identity and reiterate mathematics' real-life connection
- Incorporating tasks and/or lessons that empower them and/or reflect students' culture and community, or serve to explore issues of humanity and social justice
- Altering the focus of mathematical aptitude from “easily, quickly, and independently arriving at a correct answer” oriented around the individual to more thoughtful, iterative approaches that promote multi-person processes and interactions
- Adding assessment approaches that empower and humanize students and leverage more nuanced forms of data
- Enhancing teacher professional development so educators are set up to meet the unique needs of each student



## BALANCE THE EQUATION: IDEAL APPLICANT PROFILES

# Who should apply?

Role or organization types may include...



Collegiate Educators and Researchers



Community Leaders, Coaches, and  
Classroom-Based Educators



Content Developers and Publishers



EdTech Developers



Professional Learning Communities



School and District Administrators



## Review Process

Applications will be reviewed by **internal Gates Foundation staff as well as external subject matter experts and thought leaders** within the realm of mathematics relevance, content, language, assessment, professional learning, instructional practices, and the deep expertise centered around the needs of our priority students.

**BILL & MELINDA  
GATES foundation**

**Balance the Equation: A Grand Challenge for Algebra I  
Pre-Application Survey**

The Bill & Melinda Gates Foundation is seeking to disrupt the deeply imbalanced system against this generation-and previous generations-of Black, Latino, English Learners\* (ELs), and students experiencing poverty in the United States, who we will refer to as priority students, as it relates to their Algebra I\* experience in 7th, 8th, or 9th grade, in-class or online.

We acknowledge however, that our application process requires a substantial amount of your time and energy. **We highly recommend that you start your application journey here by reading through this list of pre-application questions to self-identify your applicability.**

*\*Please reference the [Glossary of Terms](#) for definitions of terminology used throughout.*

**Start**

2023-2024

- 1. Overview
- 2. Pre-Application Survey
- 2. Glossary
- 3. FAQs
- 4. Suggested Readings\*

**13. Briefly describe your solution and its mission by answering the questions below. Keep in mind that reviewers may not be from within your field. We recommend using simple language and providing definitions for any field-specific terminology. [open field; 450 words max]**

- ☐ What is the problem you are trying to solve? How does your solution address it?
- ☐ How does your solution benefit priority students? What is new?
- ☐ Why do you think it will be successful? Are there risks?
- ☐ How would you implement it in the classroom? How would it be maintained?
- ☐ If your solution is successful, what impact will it make? What outcomes?

*We define outcomes by a combination of:*

- 1. Existing evidence that the solution and/or critical components of the solution can move one or more of these outcomes, and*
- 2. A compelling, evidence-based articulation of the reasons why the solution has a likelihood of moving one or more of these outcomes ("why it will work").*

## Key Application Qs:

- ORG: Q 9-11
- SOLUTION: Q 13-18
- PILOT: Q28

# Total Funding

## Phase 1 Planning and Prototyping

10-15 initial planning grants of \$100K are awarded by February 2021. All Phase 1 awardees are given one opportunity to apply for additional funding (Phase 2 funding). Phase 1 will be four months long and will be in partnership with AIR, building pilot study plans.

## Phase 2 Pilot Study

8-10 successful projects have the opportunity to receive a prototyping and implementation grant of up to \$1M in Summer 2021. The pilot study will be conducted in US schools as early as Fall 2021.



BALANCE THE EQUATION: APPLICATION TIPS

# Things to Remember...

## Be Focused on the “Why”

Why Rethinking Algebra 1 Matters (Life Trajectory & Well Established Research Base)

## Be Student-Centered

Understand the Assets of Priority Students and Systemic Barriers They Face

## Be Bold and Creative

Challenge and Disrupt Our Existing Systems





# Questions

If you have any further questions, please email the team at  
**[balancetheequation@gatesfoundation.org](mailto:balancetheequation@gatesfoundation.org)**