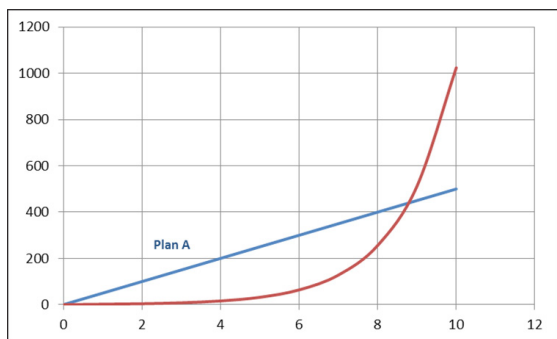


## Why (AR)<sup>2</sup>?

The jobs of the 21st century will at least require an associate's degree or better. For students to meet these challenges and with the release of the Career and College Readiness Standards, higher level math skills are needed. Less than 5% of adult education teachers majored in math in college and at best completed algebra. Both our students and our teachers need strategies to understand these higher level math demands at both the conceptual and algebraic level. (AR)<sup>2</sup> helps prepare teachers to meet these challenges.



*I built upon my algebra understanding; I learned how to apply a system of equations to real life; I learned different methods to solve a system of equations.*

# Adult Numeracy Center



Adult Numeracy Center at TERC  
2067 Massachusetts Avenue  
Cambridge, MA 02140  
<http://adultnumeracy.terc.edu>

## Contact Us!

To learn more about our professional development, custom curriculum development, or consulting services, please call

617-873-9600

or contact us at:

[adultnumeracy@terc.edu](mailto:adultnumeracy@terc.edu)

## Adults Reaching Algebra Readiness (AR)<sup>2</sup>

Adults Reaching Algebra Readiness

(AR)<sup>2</sup>

[adultnumeracy@terc.edu](mailto:adultnumeracy@terc.edu)

## What is (AR)<sup>2</sup>?

This professional development series builds upon the content presented in ANI (Adult Numeracy Instruction)-PD.

- Research-based
- Three 2-day face-to-face sessions
- Support activities between each session
- Direct connections to CCR Standards
- Teachers build on their own conceptual understanding
- Teachers learn new ways to teach for understanding

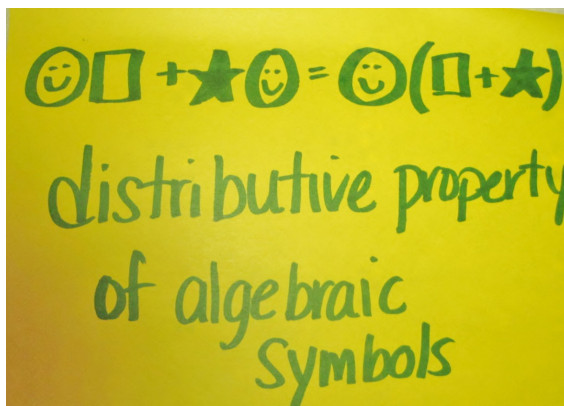
**Session 1** begins with a review of linear functions, including in-out tables, equations, and graphs and progresses to systems of equations, always beginning with real-life. The first session also explores the CCR Standards.

**Session 2** moves from only linear functions to nonlinear functions, including a look at exponents.

**Session 3** delves into quadratic functions. Throughout the sessions, we continue to connect to basic number properties and other core ideas introduced in ANI.

## Overarching Objectives

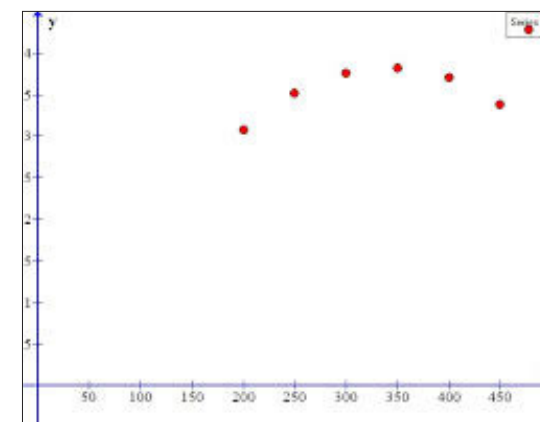
- Turn everyday experiences into opportunities for teaching algebraic topics.
- Work with algebraic expressions/ equations in various formats: verbal model, input/output tables, graphs and equations.
- Solve a system of equations graphically and algebraically.
- Manipulate symbols in decontextualized problems in order to solve linear systems of equations, and exponential and quadratic equations.
- Use the CCR Standards for math to build lessons developmentally.



## Four Big Ideas

The Four Big Ideas, first developed in TIAN (Teachers Investigating Adult Numeracy) continue to be key components of the new (AR)<sup>2</sup>. These four overarching big ideas are:

- Math as Communication
- Math as Connections
- All Strands of Math at All Levels
- A New Definition of Math Proficiency (conceptual understanding, adaptive reasoning, procedural fluency, strategic competence, and productive disposition)



*I liked focusing on fewer skills, but more depth; we didn't move too fast, which was important for this topic.*