

# ALGEBRA READINESS SOLUTIONS

Carnegie Learning™ Bridge to Algebra is a one-year course designed to remediate students who have completed a middle school math sequence of instruction but still exhibit gaps in their math knowledge and skills. The course covers the five major NCTM strands: Number and Operations, Algebra, Geometry, Measurement, Data Analysis and Probability. The course content is comprised of a consumable textbook and Cognitive Tutor® Software. The problems and activities students encounter are designed to help students integrate conceptual and procedural knowledge needed to be successful when they enter an Algebra course.

Our unique approach for blending collaborative and cooperative classroom instruction with adaptive learning technology has been proven effective. Students are more motivated to put forth extra effort to improve their math skills. The Cognitive Tutor Software **diagnoses students' strengths and weaknesses** at a highly granular level and **adapts instruction to meet their exact needs**.

Bridge to Algebra is adept at helping students develop a strong conceptual understanding of mathematics through **multiple representations**. Students do not memorize algorithms in our curriculum. Instead, they learn "why" procedures work in math by understanding the underlying representations of numbers.

**4.5 Rules Make the World Go Round**  
*Multiplying Decimals*

**Objectives**  
In this lesson, you will:  
• Multiply decimals.

**Key Terms**  
• product

**Problem 1 The Solar System**  
You are making a scale model of the solar system for science class. If you make the Sun out of a ball that is 30 inches in diameter, you can make the planets to scale using the diameters in the table.

Planet	Diameter
Mercury	0.103
Venus	0.26
Earth	0.276
Mars	0.147
Jupiter	3.09
Saturn	2.6
Uranus	1.1
Neptune	1.07
Pluto	0.05

Our consumable textbooks provide an opportunity for extended investigations and analysis via real-world situations. Our math problems are designed to emphasize connections between verbal, numeric, graphic and algebraic representations.

Carnegie Learning Algebra I  
Michelle Kelly

**10 - Linear Models and Four Quadrant Graphs**  
**1 - Graphs with Positive Integer Slopes of Change**

**Worksheet**

Quantity Name	the time from now	savings
Unit	days	dollars
Expression	$x$	$2.00x + 60.00$
Question 1	25	60.00
Question 2	20	50.00
Question 3	-5	0.00
Question 4	17	44.00

Graph Point 1  
Graph Point 2  
Graph Point 3  
Graph Point 4

Grapher:  Draw Lines X Interval: 1 Y Interval: 10

Graph showing savings (dollars) vs. time (days). Points are plotted at (25, 60), (20, 50), (-5, 0), and (17, 44). Point 4 is highlighted.

The Cognitive Tutor® software provides highly individualized and self-paced instruction that meets students' exact needs to improve their skills in Algebra. This image shows the multiple representations and real-world problems used in the software.



## How Does Carnegie Learning Differentiate Instruction?

See exactly how our software differentiates to each individual student's needs by watching our online differentiated instruction video: [www.carnegielearning.com/di\\_animation](http://www.carnegielearning.com/di_animation)

Please contact us to learn more information about our algebra readiness course, professional development and pricing at 888-851-7094 or visit:

[www.carnegielearning.com/Stimulus09](http://www.carnegielearning.com/Stimulus09)