

Real Software Solutions For Middle School Through Adult

REAL ACHIEVEMENT SOLUTIONS

Math



From Educational Activities Software

Introduction

Welcome To Real Achievement

Real Achievement, from Educational Activities Software, provides six real solutions to develop skill competencies in older students and adults. Real Achievement is especially effective with students who have not experienced much success in traditional classroom settings. It was designed to take into account the specific characteristics of adolescent and adult learners.

Real Achievement's primary goal is to build the necessary basic and problem solving skills that these older students need to succeed in academic institutions or in the workplace. Students begin with basic skills, develop competency, and use these previously mastered skills to develop more complex ones. Mastery at each level provides the foundation for learning and potential success at the next level.

Real Achievement presents learners with a variety of instructional formats, including tutorials, simulations, video-based lessons, remediation, and authentic assessment tasks that appeal to all types of learners.

Real Achievement includes assessment and tutorials in a variety of curriculum areas, as well as a wealth of reproducible worksheets for follow-up and reinforcement. Several of the modules also include supplemental on-line Internet activities and resources that provide opportunities for real-world learning.

Accountability for teachers is provided through our easy-to-use universal management system, which tracks student progress and provides detailed information for each student in all the lessons. With simple keystrokes, information can be printed out or viewed on screen and includes time-on-task, raw scores and percentages for all lessons. The bookmarking feature ensures that students who do not complete a lesson return to the point at which they left off at their next session.

A Learning Styles Inventory program is included with Real Achievement. This researched-based program is easy to administer and use and provides educators with a student's preferred learning style(s), class composite of learning styles preference, comparison of individual students to class composites, and suggestions for instructional strategies to target instruction appropriately.

The Solutions bundles include:

- Reading Solution
- Language Arts Solution
- ESL/Basic Literacy Solution
- Math Solution
- Science Solution
- Workplace Solution

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The Real Achievement Math Solution

The Math Solution is a package of seven effective software programs that complement one another. Together, these programs provide a unique solution for students who lack mastery of math skills.

The programs include:

- Arithmetic Skills Assessment Test
- Basic Math Competency Series
- Signed Numbers
- Introduction to Algebraic Word Problems
- Math Concepts Series
- Math for Everyday Living
- Touchdown Math Series

With the Math Solution you get a coordinated system of instructional software programs that provides a strong foundation for basic math skills such as percents, fractions, algebra, and measurement.

In order for learners to cope confidently with the mathematical demands of everyday life in the home, workplace, and community they need the tools of mathematics. Mathematical tools provide learners with the resources to express facts and opinions and to analyze situations. While no single method has proven most effective in math achievement, a variety of instructional methods do work.

In order to facilitate math learning with the combination of Math Solution programs, the following two cornerstone methods are applied:

- Many of the more abstract mathematical concepts are explained with concrete and visual explanations. The process of math computation is fully developed.
- There is a balance between skill building and functional needs. A lesson may begin with a problem (e.g., a mistake on a paycheck) that provides a context for learning new skills (such as subtracting decimals), or the lesson may start with a skill (e.g., adding decimals) followed by practical applications (such as adding sales tax to a fast food bill).

The content in Math Solution provides a close correlation to all major texts and is effective preparation for state competency tests and nationally accepted objectives for adult education, such as TABE, CASAS, and GED. Learners are presented with a variety of instructional formats, including tutorials, remediation, journals, and other opportunities that appeal to a variety of learning styles. An important feature of the Solutions is that they do not take a "teach to the test" approach; rather, they were designed to help learners with a "transference" of skills.

The lessons provide effective branching, positive, constant, and adult-appropriate feedback to provide a learning experience that enriches and enhances the learning process. The lessons are presented and developed sequentially. The programs are designed so that the hierarchy of sequential skills taught at each developmental level provides the foundation for the next level. Mastery at each level ensures that functional mathematical literacy is well grounded in fundamental skills.

Scope & Sequence

A brief description and scope and sequence of each software program in the Math Solution follows. Complete descriptions may be found in the teacher's guide for individual programs.

Arithmetic Skills Assessment Test

This instrument is a comprehensive assessment test that quickly determines the approximate mathematical abilities of learners with unknown math skills.

Total of 119 skills

Operations:

Addition, Subtraction, Multiplication, and Division

Skill Areas:

Whole numbers, Fractions, and Decimals

Basic Math Competency Series

This interactive tutorial program sequentially teaches math skills that will build a firm foundation for higher-level math.

Interest Level: 5.0-Adult

 Recommended  Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Rounding			Recommended	Recommended	Recommended	Recommended	Review & Reinforcement	Review & Reinforcement		
Whole numbers			Recommended	Recommended	Recommended	Recommended	Review & Reinforcement	Review & Reinforcement		
Fractions: addition & subtraction				Recommended	Recommended	Recommended	Review & Reinforcement	Review & Reinforcement		
Fractions: multiplication & division					Recommended	Recommended	Recommended	Review & Reinforcement	Review & Reinforcement	
Decimals: addition, subtraction, multiplication, & division					Recommended	Recommended	Recommended	Recommended	Review & Reinforcement	Review & Reinforcement
Graphs: mean, median, & mode						Recommended	Recommended	Recommended	Review & Reinforcement	Review & Reinforcement
Converting fractions & percents: percents						Recommended	Recommended	Recommended	Review & Reinforcement	Review & Reinforcement
Measuring with a ruler					Recommended	Recommended	Recommended	Review & Reinforcement	Review & Reinforcement	

Rounding

● Recommended ◆ Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Basic operation of whole numbers from 1-12			Recommended	Recommended	Recommended	Recommended	Review & Reinforcement	Review & Reinforcement		
Whole number numerical places from units to ten thousands			Recommended	Recommended	Recommended	Recommended	Review & Reinforcement	Review & Reinforcement		
Decimal places from tenths to ten thousandths			Recommended	Recommended	Recommended	Recommended	Review & Reinforcement	Review & Reinforcement		
Round whole number, decimal, or mixed number to the nearest ten thousand, ten thousandth, or any place between			Recommended	Recommended	Recommended	Recommended	Review & Reinforcement	Review & Reinforcement		
Round by checking the numeral to the right of the rounding place			Recommended	Recommended	Recommended	Recommended	Review & Reinforcement	Review & Reinforcement		

Scope & Sequence

Whole Numbers

● Recommended ♦ Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Add, subtract, multiply, and divide whole numbers of any length			●	●	●	●	♦	♦		
Use carrying in addition			●	●	●	●	♦	♦		
Use borrowing (regrouping) in subtraction problems			●	●	●	●	♦	♦		

Fractions: + and -

● Recommended ♦ Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Identify the numerator and the denominator				●	●	●	●	♦	♦	
Find the least common denominator and convert the numerators				●	●	●	●	♦	♦	
Reduce a fraction to lowest terms				●	●	●	●	♦	♦	
Convert an improper fraction to a mixed or whole number				●	●	●	●	♦	♦	
Add fractions and mixed numbers				●	●	●	●	♦	♦	
Subtract fractions and mixed numbers (including exchanging)				●	●	●	●	♦	♦	

Fractions: x and /

● Recommended ♦ Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Multiply fractions and mixed numbers (including exchanging)					●	●	●	♦	♦	♦
Divide fractions and mixed numbers (including inverting and renaming)					●	●	●	♦	♦	♦

Decimals

● Recommended ♦ Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Align decimal points in vertical form: addition and subtraction examples					●	●	●	●	●	♦
Find the correct number of decimal places in a product, annexing one more zeros as needed					●	●	●	●	●	♦
Divide by a decimal or a mixed number, multiplying both the divisor and dividend by the same multiple of 10					●	●	●	●	●	♦

Graphs: Mean, Median, & Mode

● Recommended ♦ Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Read a bar graph						●	●	●	●	♦
Find the mean to the nearest tenth						●	●	●	●	♦
Find the median of a set of five numbers						●	●	●	●	♦
Find the median to the nearest tenth of a set of six numbers						●	●	●	●	♦
Find the mode						●	●	●	●	♦

Scope & Sequence

Converting Fractions & Percents: Percents

● Recommended ◆ Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Convert percents to fractions						●	●	●	●	◆
Convert fractions to percents						●	●	●	●	◆
Cross multiply to find an unknown portion of a proportion						●	●	●	●	◆

Measuring With A Ruler

● Recommended ◆ Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Perimeter: perimeter of polygon is equal to the sum of its sides					●	●	●	●	◆	◆
Perimeter: formulas for squares, rectangles, and triangles					●	●	●	●	◆	◆
Perimeter: find perimeter of a polygon of any shape					●	●	●	●	◆	◆
Circumference: pi as the ratio of the circumference of a circle to its diameter					●	●	●	●	◆	◆
Circumference: use $C = \pi \times d$ formula to find the circumference of a circle					●	●	●	●	◆	◆
Area: square units in measuring area					●	●	●	●	◆	◆
Area: use formulas for finding the area of rectangles, squares, triangles, and circles					●	●	●	●	◆	◆

Signed Numbers

Using humor, this tutorial-based program guides students through sequential lessons that make ample use of everyday mathematical situations to reinforce pre-algebra topics.

Interest Level: 5.0-Adult



Recommended



Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Signed Numbers						●	●	●	●	◆

● Recommended ◆ Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Integers as whole numbers extending infinitely on both sides of zero						●	●	●	●	◆
Zero as a reference point that separates positive from negative integers						●	●	●	●	◆
Define a number's absolute value as its distance from zero						●	●	●	●	◆
Add, subtract, multiply, and divide signed numbers, and explain						●	●	●	●	◆

Scope & Sequence

Introduction to Solving Algebraic Word Problems

This program takes a step-by-step approach to help students interpret and understand word problems.

Interest Level: 5.0-Adult



Recommended



Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Introduction to Solving Algebraic Word Problems										

● Recommended ◆ Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Common mathematical phrases							●	●	●	◆
Translating phrases to algebraic expressions							●	●	●	◆
Using "let" statements							●	●	●	◆
Consecutive odd and even integers							●	●	●	◆
Organize data into a diagram							●	●	●	◆
Determine and write total value							●	●	●	◆
Solve number, consecutive integer, and coin, stamp, and ticket problems							●	●	●	◆

Math Concepts Series

This tutorial-driven series helps students unlock and understand key concepts stressed in today's math curriculum.

Interest Level: 5.0-Adult



Recommended



Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Algebra										
Geometry										
Graphing										
Integers										

Algebra

● Recommended ◆ Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Variables as place holders							●	●	●	◆
Numerical expressions							●	●	●	◆
Translating word phrases and statements into algebraic expressions							●	●	●	◆
Simple algebraic expressions using substitution							●	●	●	◆
Linear equations using inspection and systematic trial methods							●	●	●	◆
Linear equations with one variable using the algebraic method							●	●	●	◆
Solving and graphing inequalities							●	●	●	◆
Polynomials: add and subtract							●	●	●	◆
Monomials, binomials, and trinomials by monomials: multiplication and division							●	●	●	◆
Factoring polynomials							●	●	●	◆

Scope & Sequence

Geometry

● Recommended ◆ Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Angles: acute, obtuse, right, straight							●	●	●	◆
Labeling geometric figures: angles, rays, lines, line segments, etc.							●	●	●	◆
Measuring angles with a protractor							●	●	●	◆
Lines: intersecting, perpendicular, and parallel							●	●	●	◆
Angles: transversals, opposite, alternate, co-interior, and supplementary angles							●	●	●	◆
Triangles and quadrilaterals							●	●	●	◆
Calculating an interior angle measurement in triangles and quadrilaterals							●	●	●	◆
Properties of transformations: translations, reflections, rotations, enlargements, and reductions							●	●	●	◆
Circumference and area of a circle							●	●	●	◆
Applying the Pythagorean Theorem							●	●	●	◆
Volume: rectangular prism and cylinder							●	●	●	◆

Graphing

● Recommended ◆ Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
X, Y coordinate grid system							●	●	●	◆
Naming coordinate points as ordered pairs							●	●	●	◆
Plotting points on a coordinate grid							●	●	●	◆
Investigate relationships between a figure and its translated, reflected, and rotated image							●	●	●	◆
Numerical relations and ordered pairs							●	●	●	◆
Interpolating and extrapolating coordinate values for integers and decimals							●	●	●	◆
Graphs of linear relations							●	●	●	◆
Slope of a line							●	●	●	◆
X and Y intercepts							●	●	●	◆

Integers

● Recommended ◆ Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Introduction to the use of integers							●	●	●	◆
Locate integers on a number line							●	●	●	◆
Order integers							●	●	●	◆
Add and subtract integers							●	●	●	◆
Multiplying and divide integers							●	●	●	◆
Locating ordered pairs of integers on a plane							●	●	●	◆








Scope & Sequence

Math for Everyday Living

This program teaches and develops consumer math and business skill mastery needed in real-life everyday activities.

Interest Level: 5.0-Adult

 Recommended  Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Math for Everyday Living										

● Recommended ◆ Review & Reinforcement


































Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Make reasonable judgments: reasoning				●	●	●	◆	◆	◆	◆
Problem solving skills				●	●	●	◆	◆	◆	◆
Identify what a problem is asking				●	●	●	◆	◆	◆	◆
Locate relevant information				●	●	●	◆	◆	◆	◆
Key mathematical vocabulary				●	●	●	◆	◆	◆	◆
Basic operations: add, subtract, multiply, divide				●	●	●	◆	◆	◆	◆
Pay and make change				●	●	●	◆	◆	◆	◆
Sales slips				●	●	●	◆	◆	◆	◆
Unit pricing				●	●	●	◆	◆	◆	◆
Gasoline mileage w/ miles per gallon				●	●	●	◆	◆	◆	◆
Sales tax				●	●	●	◆	◆	◆	◆
Wages using help-wanted ads				●	●	●	◆	◆	◆	◆
Compare earnings with overtime and a normal work week				●	●	●	◆	◆	◆	◆
Percents: compute earnings with commission				●	●	●	◆	◆	◆	◆
Time cards				●	●	●	◆	◆	◆	◆
Paychecks and stubs				●	●	●	◆	◆	◆	◆

Touchdown Math Series

This learning game series reinforces key math computational skills in a highly motivating environment.

Interest Level: 5.0-Adult

 Recommended  Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Whole Numbers										
Decimals										
Fractions										
Percent										
Rounding										

Scope & Sequence

Whole Numbers

● Recommended ♦ Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Addition and subtraction; decimals fractions and numbers			●	●	●	●	●	●	♦	♦
Subtract decimal number from whole number			●	●	●	●	●	●	♦	♦
Add or subtract money; two decimal places			●	●	●	●	●	●	♦	♦
Multiplication			●	●	●	●	●	●	♦	♦
Decimal fraction times decimal fraction			●	●	●	●	●	●	♦	♦
Whole number times decimal fraction, or the reverse			●	●	●	●	●	●	♦	♦
Decimal fraction times decimal number			●	●	●	●	●	●	♦	♦
Division; up to three-digit divisor and up to three digit quotient			●	●	●	●	●	●	♦	♦
Divide whole and decimal numbers			●	●	●	●	●	●	♦	♦

Decimals

● Recommended ♦ Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Round whole numbers; up to the nearest thousand				●	●	●	♦	♦	♦	♦
Round decimal numbers; up to the nearest thousandth				●	●	●	♦	♦	♦	♦
Round longer numbers, double or triple nines; up to the nearest hundred million				●	●	●	♦	♦	♦	♦

Fractions

● Recommended ♦ Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Write proper fraction in lowest terms					●	●	●	♦	♦	♦
Write improper fraction as whole number					●	●	●	♦	♦	♦
Write whole number as improper fraction					●	●	●	♦	♦	♦
Write improper fraction as mixed number; lowest terms not required					●	●	●	♦	♦	♦
Write mixed number as improper fraction					●	●	●	♦	♦	♦
Find least common denominator					●	●	●	♦	♦	♦
Addition and subtraction; like and unlike fractions					●	●	●	♦	♦	♦
Whole numbers and mixed numbers					●	●	●	♦	♦	♦
Renaming unlike fractions					●	●	●	♦	♦	♦
Mixed numbers and unlike fractions					●	●	●	♦	♦	♦
Multiplication and division of two fractions					●	●	●	♦	♦	♦
Fractions and whole numbers					●	●	●	♦	♦	♦
Mixed numbers					●	●	●	♦	♦	♦

Scope & Sequence

Percent

● Recommended ◆ Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Rewrite percents as fractions, percents, decimals, and percents						●	●	●	◆	◆
Rewrite whole or mixed numbers as percents, or the reverse						●	●	●	◆	◆
Rewrite decimal percents as decimals, or the reverse						●	●	●	◆	◆
Find a percent of a number						●	●	●	◆	◆
Find the number when a percent is known						●	●	●	◆	◆
Find the unknown percent						●	●	●	◆	◆

Rounding

● Recommended ◆ Review & Reinforcement

Literacy Level	PP-1.5	1.5-2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10-12/Adult
Round whole numbers; up to the nearest thousand				●	●	●	◆	◆	◆	◆
Round nines				●	●	●	◆	◆	◆	◆
Round one place; no nines				●	●	●	◆	◆	◆	◆
Round in more than one place				●	●	●	◆	◆	◆	◆
Decimal numbers: round up to the nearest thousandth				●	●	●	◆	◆	◆	◆
Round longer numbers and nines; up to the nearest hundred million				●	●	●	◆	◆	◆	◆
Round double or triple nines				●	●	●	◆	◆	◆	◆



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