

CONSUMER MATH

Numbers and Operations Standard: 1 Understands and applies concepts of numbers and operations				
Power Benchmark 1: Understands numbers, ways of representing numbers, relationships among numbers, and number systems				
Grade Level Benchmark	Vocabulary	Background Knowledge/Prior Skills	Skills to Assess	
a. Uses the appropriate form of a rational number (fraction, decimal, percent) in computations ITED *** ACT SAT	<ul style="list-style-type: none"> • Fraction • Decimal • Percent • Equivalent forms 	<ul style="list-style-type: none"> • Understands fractions, decimals, and percents can be expressed in various ways 	<ul style="list-style-type: none"> • Converts fractions, decimals, and percents to equivalent forms (ITED, ACT) • Identifies the appropriate rational number to use in a problem situation (ITED, ACT) 	
Power Benchmark 3: Computes fluently and makes reasonable estimates				
a. Uses a variety of operations on expressions containing real numbers ITED *** ACT SAT	<ul style="list-style-type: none"> • Simplify 	<ul style="list-style-type: none"> • Knows the algorithms of operations for real numbers 	<ul style="list-style-type: none"> • Adds, subtracts, multiplies, divides, and simplifies expressions of real numbers (ITED, ACT, SAT) 	
b. Uses estimation strategies for computing complex numbers ITED *** ACT SAT	<ul style="list-style-type: none"> • Estimation • Exact answer • Mental computation • rounding 	<ul style="list-style-type: none"> • Knows when an estimate or an exact answer is more appropriate • Knows how to judge the reasonableness of an answer • Understands that rounding and estimation inherently add discrepancy • Understands appropriate places to round when estimating 	<ul style="list-style-type: none"> • Checks answers using estimation strategies (ACT, SAT) • Uses the appropriate places when estimating answers (ITED) • Makes reasonable estimates (ITED) 	

ITED Focus Lessons: Ratios, Proportions, Matrices (adding and subtracting), Fractions, Decimals, Percents, Absolute Value (simplify and solve problems), range of rounded numbers, write equations for specific problem but do not solve

Algebra Standard:2 Understands and applies concepts of algebra and functions				
Power Benchmark 4: Analyzes change in a variety of situations				
Grade Level Benchmark	Vocabulary	Background Knowledge/Prior Skills	Skills to Assess	
a. Calculates and plans for a variety of expenses.	<ul style="list-style-type: none"> • Daily cost • Fixed cost • Variable cost 	<ul style="list-style-type: none"> • Knows costs can be fixed or can vary by mile/time 	<ul style="list-style-type: none"> • Completes application of costs to appropriate area - • Computes appropriate cost for use of item - 	

Measurement Standard: 4 Understands and applies concepts of measurement				
Power Benchmark 2: Applies appropriate techniques, tools and formulas to determine measurements				
a. Uses formulas to find perimeter and area of various figures	<ul style="list-style-type: none"> • Perimeter • Area • Formula 	<ul style="list-style-type: none"> • Knows the formulas for perimeter and area 	<ul style="list-style-type: none"> • Calculates the amount of materials needed for home improvement projects 	
b. Makes reasonable estimates about the accuracy of solutions	<ul style="list-style-type: none"> • Approximation 	<ul style="list-style-type: none"> • Knows what a reasonable answer may look like • Knows appropriate measurement units 	<ul style="list-style-type: none"> • Computes reasonable answers based on how materials are packaged 	

Data Analysis and Probability Standard: 5 Understands and applies concepts of data analysis and probability				
Power Benchmark 1: Formulates questions that can be addressed with data and collects, organizes, and displays relevant data to answer them				
Grade Level Benchmark	Vocabulary	Background Knowledge/Prior Skills	Skills to Assess	
a. Applies a variety of strategies to solve problems using graphs, tables, and charts	<ul style="list-style-type: none"> • Table • Graph • Chart • Row • Column 	<ul style="list-style-type: none"> • Understand the title • Interpret labels 	<ul style="list-style-type: none"> • Interpret information from a table or graph • Apply information to solve problems 	

Problem Solving Standard: 6 Understands and applies problem solving strategies				
Power Benchmark 1: Uses a variety of strategies to solve problems				
a. Uses a variety of strategies to understand new mathematical content ITED	<ul style="list-style-type: none"> • Guess and check • Find or use a pattern • Use logical reasoning 	<ul style="list-style-type: none"> • Knows the general problem solving strategies • Knows the same situation can often be represented in more than one way 	<ul style="list-style-type: none"> • Extracts the main idea of a problem - • Chooses appropriate strategies to solve problems in the context of the problem situation - • Uses previously learned strategies, skills, knowledge, and concepts to solve problems - 	
b. Selects and uses appropriate formulas to solve problems	<ul style="list-style-type: none"> • Formula 	<ul style="list-style-type: none"> • Knows the appropriate formulas 	<ul style="list-style-type: none"> • Matches situations to appropriate formulas -- 	

Communications Standard: 8 Communicates and reasons mathematically				
Power Benchmark 1: Expresses ideas using mathematical terms and representations				
Grade Level Benchmark	Vocabulary	Background Knowledge/Prior Skills	Skills to Assess	
a. Connects ideas to mathematical terms	<ul style="list-style-type: none"> • Tax • Insurance • Wage • Social security • FICA • Credit 	<ul style="list-style-type: none"> • Knows wages are paid for work • Knows government assesses a percent of wages for their use • Knows individual credit availability 	<ul style="list-style-type: none"> • Computes wages based on hourly wage and hours worked - • Computes taxes given deductions and tax percentages - • Computes insurance costs given age, smoking status, and sex - • Computes insurance costs given age, smoking status, and sex - 	
Power Benchmark 2: Uses tools (such as technology) to enhance mathematical learning				
a. Uses tools and technology to solve problems	<ul style="list-style-type: none"> • Spreadsheet • Table • Graphs • Variety of charts 	<ul style="list-style-type: none"> • Knows basic data entry operations <p>Knows functioning of basic data display software</p>	<ul style="list-style-type: none"> • Completes spreadsheet given data • Completes spreadsheet given data 	

