



Consumer Math

Standards	Benchmarks	Unit Name	Course Topic Description
1 Students engage in the mathematical processes of problem solving and reasoning, estimation, communication, connections and applications, and using appropriate technology.	1.1 recognize and formulate problems from situations within and outside mathematics and apply solution strategies to those problems.	All about Jobs	Addition and Subtraction of Decimals
			Multiplication and Division of Whole Numbers and Decimals
			Finding a Job
			Computing Pay by Hourly Wages
			Fractions, Decimals, and Percents
			Percents to Decimals or Fractions
			Percent of a Number
			Review of Order of Operations
			Wages and Tips
		Wages	Addition and Subtraction of Common Fractions
			Multiplication of Fractions
			Division of Fractions
			Pre-employment Forms
			Time Sheets And Time Cards
			Expressions
			Evaluating Expressions and Formulas
			Solving Equations: Addition and Subtraction
			Solving Equations: Multiplication and Division
			Solving Two-Step Equations
		Salary	
Commission			
Deductions, Taxes, and Insurance	Payroll Deductions		



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Standards	Benchmarks	Unit Name	Course Topic Description
			FICA Deductions
			Health Insurance
			Life Insurance
			Tables and Graphs
			Mean, Median, and Mode
			Federal Income Tax
			Federal Tax Table
			Filling Out the Form
		Recreation and Spending	Movies and Shows (using tables)
			Parks and Sports
			Costs of Recreation
			Health Clubs and Fitness Classes
			Buying Clothes
			Catalog Shopping
			Buying Food
			Eating Out
		Transportation	Air Travel and Time Zones
			Busses, Trains, Subways, and Taxis
			Distance
			Estimating Using Mileage Charts
			Taking a Road Trip
		Personal Finances	The Coordinate System
			Writing Linear Equations
			Graphing an Equation Using Points
			Graphing Using Slope and Y-Intercept
			Net Worth and Purchasing Power



Consumer Math

Standards	Benchmarks	Unit Name	Course Topic Description
			Inflation Rate
			Budgets (graph)
			Budgeting Expenses
			The Costs of Raising a Family
		Checking and Savings Accounts	Working with Exponential Equations
			Calculator With An Exponent Key
			Predicting Using Exponential Functions
			Graphing Exponential Equations
			Plotting the curve
			Predicting From the Curve
			Plotting a Decay Curve
			Checking Accounts
			The Check Register
			Savings Accounts
			Simple Interest
			Compound Interest
			Working with Compound Interest
			Savings and Graphs
			Estimating and Comparing
			Comparing different periods of compounding
		Credit	Using Credit Cards
			Working with Finance Charges
			Variable Rates
			Loans
			Using Tables to Find Interest



Consumer Math

Standards	Benchmarks	Unit Name	Course Topic Description
			Using Tables to Find Monthly Payments
			Installment Loan Plans
			Finding the APR
			Estimate the APR
			Thinking about Credit
		Automobile Expenses	Buying a New Automobile
			Finding the Total Cost
			Used Cars
			Auto Loans
			Operating Expenses
			Finding the MPG
			Estimating the Cost of a Trip
			Preventative Maintenance and Repairs
			Mean Cost per Year
			Automobile Insurance
			Insurance Ratings Factors
			Finding the Total Premium (table)
			Car Rental Costs
			Comparing Cars with Tables
			Car Cost Comparison Using Graphs
		Housing	Housing
			Renting an Apartment
			Maximum Rent
			Buying a House
			Maximum to Spend on a House
			Finding Appreciation



Consumer Math

Standards	Benchmarks	Unit Name	Course Topic Description	
			The Mortgage	
			Taxes and Insurance	
			Homeowner's Insurance	
			Decorating and Remodeling	
			Finding the Area of the Room	
			Scale Drawings	
	1.2 select, apply, and evaluate appropriate estimation strategies throughout the problem-solving process.	Transportation	Estimating Using Mileage Charts	
		Checking and Savings Accounts	Predicting Using Exponential Functions	
			Predicting From the Curve	
			Estimating and Comparing	
		Credit	Estimate the APR	
		Automobile Expenses	Estimating the Cost of a Trip	
	1.3 formulate definitions, make and justify inferences, express generalizations, and communicate mathematical ideas and relationships.	All about Jobs	Fractions, Decimals, and Percents	
			Percents to Decimals or Fractions	
			Percent of a Number	
		Wages	Expressions	
			Evaluating Expressions and Formulas	
		Recreation and Spending	Costs of Recreation	
			Buying Food	
			Eating Out	
			Transportation	Taking a Road Trip
		Personal Finances	Budgeting Expenses	
			The Costs of Raising a Family	
		Checking and Savings Accounts	Comparing different periods of compounding	
			Credit	Using Credit Cards



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Standards	Benchmarks	Unit Name	Course Topic Description
			Thinking about Credit
	<p>1.4 apply and translate among different representations of the same problem situation or of the same mathematical concept. Model connections between problem situations that arise in disciplines other than mathematics.</p>	All about Jobs	Finding a Job
			Wages and Tips
		Wages	Pre-employment Forms
			Time Sheets And Time Cards
			Salary
			Commission
		Deductions, Taxes, and Insurance	Deductions, Taxes, and Insurance
			Payroll Deductions
			FICA Deductions
			Health Insurance
			Life Insurance
			Federal Income Tax
			Federal Tax Table
			Filling Out the Form
		Recreation and Spending	Movies and Shows (using tables)
			Parks and Sports
			Costs of Recreation
			Health Clubs and Fitness Classes
			Buying Clothes
			Catalog Shopping
		Buying Food	
		Eating Out	
	Transportation	Air Travel and Time Zones	
		Busses, Trains, Subways, and Taxis	
	Personal Finances	Net Worth and Purchasing Power	



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Standards	Benchmarks	Unit Name	Course Topic Description
			Inflation Rate
			Budgeting Expenses
			The Costs of Raising a Family
		Checking and Savings Accounts	Checking Accounts
			The Check Register
			Savings Accounts
		Credit	Using Credit Cards
			Loans
			Installment Loan Plans
			Thinking about Credit
		Automobile Expenses	Buying a New Automobile
			Used Cars
			Auto Loans
			Operating Expenses
			Preventative Maintenance and Repairs
			Automobile Insurance
			Insurance Ratings Factors
			Car Rental Costs
			Comparing Cars with Tables
		Housing	Renting an Apartment
	The Mortgage		
	Taxes and Insurance		
	Homeowner's Insurance		
	Decorating and Remodeling		
1.5 select and use appropriate technology to enhance mathematical understanding. Appropriate	Deductions, Taxes, and Insurance	Federal Tax Table	
	Recreation and Spending	Movies and Shows (using tables)	



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	technology may include, but is not limited to, paper and pencil, calculator, computer, and data collection devices.	Transportation	Estimating Using Mileage Charts	
		Checking and Savings Accounts	Calculator With An Exponent Key	
		Credit	Using Tables to Find Interest	
			Using Tables to Find Monthly Payments	
		Automobile Expenses	Finding the Total Premium (table)	
2 Students demonstrate understanding of and an ability to use numbers and operations.	2.1 use and understand the real number system, its operations, notations, and the various subsystems.	All about Jobs	Addition and Subtraction of Decimals	
			Multiplication and Division of Whole Numbers and Decimals	
			Computing Pay by Hourly Wages	
			Fractions, Decimals, and Percents	
			Percents to Decimals or Fractions	
			Percent of a Number	
			Review of Order of Operations	
			Wages and Tips	
			Wages	Addition and Subtraction of Common Fractions
				Multiplication of Fractions
		Division of Fractions		
		Time Sheets And Time Cards		
		Expressions		
		Evaluating Expressions and Formulas		
		Solving Equations: Addition and Subtraction		
		Solving Equations: Multiplication and Division		
		Solving Two-Step Equations		
		Salary		



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Standards	Benchmarks	Unit Name	Course Topic Description
			Commission
		Deductions, Taxes, and Insurance	Tables and Graphs Mean, Median, and Mode
		Recreation and Spending	Movies and Shows (using tables) Parks and Sports Costs of Recreation Health Clubs and Fitness Classes Buying Clothes Catalog Shopping Buying Food Eating Out
		Transportation	Busses, Trains, Subways, and Taxis Distance Estimating Using Mileage Charts Taking a Road Trip
		Personal Finances	The Coordinate System Writing Linear Equations Graphing an Equation Using Points Graphing Using Slope and Y-Intercept Net Worth and Purchasing Power Inflation Rate Budgets (graph) Budgeting Expenses The Costs of Raising a Family
		Checking and Savings Accounts	Working with Exponential Equations Calculator With An Exponent Key



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Standards	Benchmarks	Unit Name	Course Topic Description
			Predicting Using Exponential Functions
			Graphing Exponential Equations
			Plotting the curve
			Predicting From the Curve
			Plotting a Decay Curve
			Checking Accounts
			The Check Register
			Savings Accounts
			Simple Interest
			Compound Interest
			Working with Compound Interest
			Savings and Graphs
			Estimating and Comparing
			Comparing different periods of compounding
		Credit	Working with Finance Charges
			Variable Rates
			Loans
			Using Tables to Find Interest
			Using Tables to Find Monthly Payments
			Installment Loan Plans
			Finding the APR
			Estimate the APR
		Automobile Expenses	Finding the Total Cost
			Used Cars
			Auto Loans



Consumer Math

Standards	Benchmarks	Unit Name	Course Topic Description
			Operating Expenses
			Finding the MPG
			Estimating the Cost of a Trip
			Preventative Maintenance and Repairs
			Mean Cost per Year
			Automobile Insurance
			Finding the Total Premium (table)
			Car Rental Costs
			Comparing Cars with Tables
			Car Cost Comparison Using Graphs
		Housing	Housing
			Renting an Apartment
			Maximum Rent
			Buying a House
			Maximum to Spend on a House
			Finding Appreciation
			The Mortgage
			Taxes and Insurance
			Homeowner's Insurance
Finding the Area of the Room			
Scale Drawings			
	2.2 use definitions and basic operations of the complex number system.		
3 Students use algebraic concepts, processes, and	3.1 use algebra to represent patterns of change.	Personal Finances Personal Finances Personal Finances	The Coordinate System
			Writing Linear Equations
			Graphing an Equation Using Points



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Standards	Benchmarks	Unit Name	Course Topic Description	
language to model and solve a variety of real-world and mathematical problems.			Graphing Using Slope and Y-Intercept	
			Net Worth and Purchasing Power	
			Inflation Rate	
		Checking and Savings Accounts	Working with Exponential Equations	
			Calculator With An Exponent Key	
			Predicting Using Exponential Functions	
			Graphing Exponential Equations	
			Plotting the curve	
			Predicting From the Curve	
			Plotting a Decay Curve	
			Simple Interest	
			Compound Interest	
		Working with Compound Interest		
		Housing	Maximum Rent	
			Buying a House	
			Maximum to Spend on a House	
			Finding Appreciation	
			The Mortgage	
	3.2 use basic operations with algebraic expressions.	Personal Finances		The Coordinate System
				Writing Linear Equations
			Graphing an Equation Using Points	
			Graphing Using Slope and Y-Intercept	
		Net Worth and Purchasing Power		
		Inflation Rate		
Checking and Savings Accounts			Working with Exponential Equations	
			Calculator With An Exponent Key	



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Standards	Benchmarks	Unit Name	Course Topic Description	
			Predicting Using Exponential Functions	
			Graphing Exponential Equations	
			Plotting the curve	
			Predicting From the Curve	
			Plotting a Decay Curve	
			Simple Interest	
			Compound Interest	
			Working with Compound Interest	
			Housing	Maximum Rent
			Buying a House	
			Maximum to Spend on a House	
			Finding Appreciation	
			The Mortgage	
			3.3 solve algebraic equations and inequalities: linear, quadratic, exponential, logarithmic, and power.	Checking and Savings Accounts
	Calculator With An Exponent Key			
	Predicting Using Exponential Functions			
	Graphing Exponential Equations			
	Plotting the curve			
	Predicting From the Curve			
	3.4 solve systems of algebraic equations and	Housing		Plotting a Decay Curve
Compound Interest				
Working with Compound Interest				
			Maximum Rent	
			Buying a House	
			Maximum to Spend on a House	



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Standards	Benchmarks	Unit Name	Course Topic Description
	inequalities, including use of matrices.		
	3.5 use algebraic models to solve mathematical and real-world problems.	Personal Finances	The Coordinate System
			Writing Linear Equations
			Graphing an Equation Using Points
			Graphing Using Slope and Y-Intercept
			Net Worth and Purchasing Power
			Inflation Rate
		Checking and Savings Accounts	Working with Exponential Equations
			Calculator With An Exponent Key
			Predicting Using Exponential Functions
			Graphing Exponential Equations
			Plotting the curve
			Predicting From the Curve
			Plotting a Decay Curve
			Simple Interest
		Housing	Compound Interest
			Working with Compound Interest
			Maximum Rent
			Buying a House
	Maximum to Spend on a House		
		Finding Appreciation	
		The Mortgage	
4 Students demonstrate understanding of shape and an ability to use geometry.	4.1 construct, interpret, and draw three-dimensional objects.		
	4.2 classify figures in terms of congruence and similarity and apply these relationships.		
	4.3 translate between synthetic and coordinate		



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	representations.		
	4.4 deduce properties of figures using transformations, coordinates, and vectors in problem solving.		
	4.5 apply trigonometric ratios (sine, cosine and tangent) to problem situations involving triangles.		
5 Students demonstrate understanding of measurable attributes and an ability to use measurement processes.	5.1 apply concepts of indirect measurements (e.g., using similar triangles to calculate a distance).	Housing	Scale Drawings
	5.2 use dimensional analysis to check reasonableness of procedures.		
	5.3 investigate systems of derived measures (e.g., km/sec, g/cm ³).		
	5.4 apply the appropriate concepts of estimates in measurement, error in measurement, tolerance, and precision.		
6 The students demonstrate understanding of and an ability to use data analysis, probability, and statistics.	6.1 use curve fitting to make predictions from data.	Checking and Savings Accounts	Plotting the curve
			Predicting From the Curve
	6.2 apply measures of central tendency and demonstrate understanding of the concepts of variability and correlation.	Deductions, Taxes, and Insurance Automobile Expenses	Mean, Median, and Mode
			Mean Cost per Year
	6.3 select an appropriate sampling method for a given statistical analysis.		
	6.4 use experimental probability, theoretical probability, and simulation methods to represent and solve problems, including expected values.		
	6.5 design a statistical experiment to study a problem and communicate the outcomes.		
6.6 describe, in general terms, the normal curve and use its properties to answer questions about sets of data that are assumed to be normally	Checking and Savings Accounts	Plotting the curve	
		Predicting From the Curve	



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Standards	Benchmarks	Unit Name	Course Topic Description
	distributed.		
7 Students demonstrate understanding of and an ability to use patterns, relations and functions.	7.1 describe functions and their inverses using graphical, numerical, physical, algebraic, and verbal mathematical models or representations.		
	7.2 analyze the graphs of the families of polynomial, rational, power, exponential, logarithmic, and periodic functions.		
	7.3 analyze the effects of parameter changes on the graphs of functions and relations, including translations.		
	7.4 model real-world phenomena with a variety of functions.		
	7.5 use graphing for parametric equations, three-dimensional equations, and recursive relations.		