Tests of Adult Basic Education

LEVEL A



TABE 11 & 12 MATHEMATICS BLUEPRINT OVERVIEW

	DOMAIN	STANDARD	STANDARD DESCRIPTION	AE-CCR LEVEL	TABE 11/12 EMPHASIS LEVEL
GEOMETERY (15%)	G.CO: Con- gruence	G.CO.1	Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.	E	Low
	G.SRT: Sim- ilarity, Right Triangles, and Trigo- nometry	G.SRT.5	Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.	E	Medium
	G.GMD: Geometric Measurement and Dimen- sion	G.GMD.3	Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.	E	High
	G.MG: Mod- eling with Geometry	G.MG.2	Apply concepts of density based on area and volume in modeling situa- tions (e.g., persons per square mile, BTUs per cubic foot).	E	Medium

(13%)	DOMAIN	STANDARD	STANDARD DESCRIPTION	AE-CCR LEVEL	TABE 11/12 EMPHASIS LEVEL
NUMBERS AND QUANTITY	N.RN: The Real Number System	N.RN.2	Rewrite expressions involving radicals and rational exponents using the properties of exponents.	E	Medium
	N.Q: Quantities	N.Q.1	Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formu- las; choose and interpret the scale and the origin in graphs and data displays.	E	High
		N.Q.3	Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.	E	Low

	DOMAIN	STANDARD	STANDARD DESCRIPTION	AE-CCR LEVEL	TABE 11/12 EMPHASIS LEVEL
	A.SSE: See- ing Structure in Expressions	A.SSE.1a	Interpret parts of an expression, such as terms, factors, and coefficients.	E	Low
ALGEBRA (28%)		A.SSE.2	Use the structure of an expression to identify ways to rewrite it. For example, see $x4 - y4$ as $(x2)2 - (y2)2$, thus recognizing it as a difference of squares that can be factored as $(x2 - y2)(x2 + y2)$.	E	Low
		A.SSE.3a	Factor a quadratic expression to reveal the zeroes of the function it defines.	E	Low
	A.APR: Arith- metic with Polynomials and Rational Expressions	A.APR.1	Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add subtract, and multiply polynomials.	E	Medium
	A.CED: Creating Equations	A.CED.1	Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.	E	Low
		A.CED.2	Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.	E	Low
		A.CED.3	Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.	E	Medium
	A.REI: Rea- soning with Equations and Inequal- ities	A.REI.1	Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.	E	Low
		A.REI.3	Solve linear equations and inequalities in one variable, including equa- tions with coefficients represented by letters.	Е	Low
		A.REI.4	Solve quadratic equations in one variable.	E	Low
		A.REI.6	Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.	E	Medium
		A.REI.10	Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).	E	High

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FUNCTIONS (28%)	DOMAIN	STANDARD	STANDARD DESCRIPTION	AE-CCR LEVEL	TABE 11/12 EMPHASIS LEVEL
	F.IF: Interpreting Functions	F.IF.1	Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x. The graph of f is the graph of the equation $y = f(x)$.	E	Low
		F.IF.2	Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.	E	Medium
		F.IF.4	For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. For example, for a quadratic function modeling a projectile in motion, interpret the intercepts and the vertex of the function in the context of the problem.	E	Medium
		F.IF.6	Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.	E	Medium
		F.IF.7	Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.	E	High
		F.IF.8b	Use properties of exponents to interpret expressions for exponential functions. For example, identify percent rate of change in an exponential function and then classify it as representing exponential growth or decay.	E	Low
		F.IF.9	Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.	E	Low
	F.BF: Building Functions	F.BF. 1	Write a function that describes a relationship between two quantities.	E	Low
	F.LE: Linear, Quadratic,	F.LE.1c	Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.	E	Low
	and Exponential Models	F.LE.5	Interpret the parameters in a linear or exponential function in terms of a context.	E	Low

BILITY (16%)	DOMAIN	STANDARD	STANDARD DESCRIPTION	AE-CCR LEVEL	TABE 11/12 EMPHASIS LEVEL
	S.ID: Interpreting Categorical and Quantitative Data	S.ID.1	Represent data with plots on the real number line (dot plots, histograms, and box plots).	Е	Medium
ROBA		S.ID.3	Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).	Е	Medium
STATISTICS AND PR		S.ID.5	Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.	E	Medium
		S.ID.7	Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.	E	Medium
		S.ID.9	Distinguish between correlation and causation.	E	Low

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