Houston County School District (Honors Alg. 1)
Formative Assessments Pacing Guide for Mathematics AHSGE Objectives

AHSGE – **Mathematics –** Standards, Objectives, and Eligible Content
(Each Objective has **4 items** except Objectives V – 1, 4 and VI – 1 which have **6 each**)

Objectives and Eligible Content	Vocabulary	Resources	Date Introduced	Date Tested	% of Students who mastered skills
I –1 Apply order of operations. **a.** One, two, or no variables **b.** One set of parentheses **c.** Determining the absolute value of a term **d.** Squaring the quantity in parentheses **e.** No more than four terms **f.** Adding or subtracting negative integers **h.** Decimals to the tenths' place	Grouping symbols Absolute value Evaluate Expression PEMDAS Squared Cubed Positive integers Negative integers	Item Specs. Glencoe Passing the AHSGE Exam View Pro Enrichment Plus	August September	April Benchmark	
I – 2 Add and subtract polynomials. **a.** Using the distributive property **b.** Unlike denominators	Distribute Numerator denominator Like terms Polynomial Unlike terms	Glencoe Passing the AHSGE	February	April Benchmark	
I – 3 Multiply polynomials. **a.** Multiplying two quantities in parentheses **b.** Squaring a quantity in parentheses **c.** Adding or subtracting **d.** Raising a quantity to a power **e.** Fractions **f.** Adding exponents	exponent power binomial distribute FOIL method	Item Specs. Glencoe Passing the AHSGE Exam View Pro Enrichment Plus	February March	April Benchmark	
I – 4 Factor polynomials. **a.** Difference of two squares **b.** Greatest common monomial **c.** Trinomial **d.** Common binomial **e.** Options will be factored completely.	perfect square monomial binomial trinomial GCM factor factor	Item Specs. Glencoe Passing the AHSGE Exam View Pro Enrichment Plus	February March	April Benchmark	

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II – 1 Solve multi-step equations of first degree. **a.** One set of parentheses **b.** Finding the sum or difference of terms containing the same variable **c.** Adding or subtracting a variable to or from both sides of the equation **d.** The solution to the equation **e.** Coefficients may be simple fractions.	coefficient Inverse operation	Item Specs. Glencoe Passing the AHSGE Exam View Pro Enrichment Plus	September October	April Benchmark	
II – 2 Solve Quadratic equations that are factorable. **a.** Factoring of the type $ax^2 + bx = 0$ **b.** Difference of two squares **c.** Greatest common nominal **d.** Trinomial **e.** Common binomial	Quadratic equation Difference	Item Specs. Glencoe Passing the AHSGE Exam View Pro Enrichment Plus	March April	April Benchmark	
II –3 Solve systems of two linear equations. **a.** Solving for the values of both x and y **b.** The options may be four graphs with lines plotted and the intersection point labeled with its ordered pair.	X-intercept y-intercept system of equation ordered pair origin intersection	Item Specs. Glencoe Passing the AHSGE Exam View Pro Enrichment Plus	January February		
II – 4 Solve multi-step inequalities of first degree. **a.** A negative coefficient may be used.				December	
III – 1 Identify functions. The options may be: **a.** Graphs, ordered pairs, tables or mappings **b.** Equations when given a table of values or ordered pairs **c.** Tables of values or ordered pairs when given an equation **d.** Functions may be expressed using either terminology "$f(x) =$" or "$y =$".	Mapping relation function range domain vertical line test horizontal line f(x)	Item Specs. Glencoe Passing the AHSGE Exam View Pro Enrichment Plus	October November	April Benchmark	

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III – 2 Find the range of functions when given the domain. **a.** The domain of a function may be a single value or set of values. **b.** A set of ordered pairs may be used. **c.** Functions may be expressed using either terminology "$f(x)$ ="or "y =".	range domain function		October November	April Benchmark	
IV – 1 Find the perimeter, circumference, area, or volume of geometric figures. **a.** The value of pi (π) will be 3.14. **b.** Options may be left in terms of π. **c.** Unnecessary dimensions may be included. **d.** Drawings may be used. **e.** Finding volume or surface area of a rectangular prism may be required. **f.** Extracting a square root may be required. **g.** Determining the area of a circle when given the diameter in the drawing may be required. **h.** The formulas will be given in the problems.	square root square radical dimensions pi radius diameter perimeter area circumference volume prism area circle formula			Geometry	
IV – 2 Find the distance, midpoint, or slope of line segments when given two points. **a.** Radicals **b.** Radicals will be simplified. **c.** Lines graphed on the coordinate plane **d.** Determining slope of a line given a line on the coordinate plane with two points on a line on the coordinate plane without any coordinates labeled **e.** The formulas will be given in the problems.	formulas midpoint slope radical distance coordinate plane ordered pair (x, y)		November	April Benchmark	
V – 1 Graph or identify graphs of linear equations.	Linear equation		November	April Benchmark	

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V – 4 Identify graphs of common relations. **a.** Equations may be expressed in terms of $f(x)$. **b.** The options may be four graphs. **c.** The options may be four equations. **d.** The common relations are: x = constant, y = constant, y = x, y = square root of x, $y = x^2$, y = l x l	relation f(x)	Teacher supplement Item Specs. Glencoe Passing the AHSGE Exam View Pro Enrichment Plus	November December	April Benchmark Test	
V – 2 Graph lines given certain conditions. **a.** Two points, x- and y- intercepts, point and slope, slope and y- intercept	X- intercept y-intercept slope	supplement	November December	April Benchmark	
V – 3 Determine solution sets of inequalities. **a.** Compound inequality may be included. **b.** Solving inequality may be required. **c.** Options will be graphs.	inequality and/or compound inequality open/closed		December	April Benchmark	
VI – 1. Translate verbal or symbolic information into algebraic expressions; or identify equations or inequalities that represent graphs or problem situations. **a.** Determining an equation or expression when given a verbal description **b.** Graphing inequalities using a number line **c.** Determining the equation of a line given two ordered pairs **d.** Determining the equation of a line given the line graphed on the coordinate plane	sum difference twice half of product quotient is equations inequalities slope-intercept standard form greater than less than less increase decrease	Item Specs. Glencoe Passing the AHSGE Exam View Pro Enrichment Plus	September Inequality December March April	April Benchmark	

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VII – 1 Apply properties of angles and relationships between angles. **a.** The following properties and relationships may be included: vertical angles - adjacent angles - supplementary angles - complementary angles - linear pair - relationships among the measures of angles formed by two parallel lines and a transversal **b.** Word problems may be used. **c.** The knowledge of the sum of measures of angles may be used. **d.** Determining measurements of angles when the measurements of angles are expressed as algebraic expressions may be required.	Interior angle supplement complement linear pair vertical adjacent angles supplementary angles complementary angles corresponding angle exterior angle parallel lines transversal			Geometry	
VII – 2 Apply Pythagorean Theorem **a.** The Pythagorean Theorem will be given on the reference page. **b.** Diagrams, word problems, radicals will be used or included. **c.** All radicals will be simplified. **d.** Drawings will be to scale.	Rt. triangle $c^2=a^2+b^2$ hypotenuse legs radicals right angle right triangle		March		
VII – 3 Apply properties of similar polygons. **a.** Diagrams will be included. **b.** Drawings will be to scale. **c.** The word *similar* or the symbol " ~ " may be used. **d.** Use of the scale factor will be required.	similar scale factor proportions cross product		April		

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VII – 4 Apply properties of plane and solid geometric figures. **a.** Diagrams will be included. **b.** Word problems will be used. **c.** The following content may be included: area and perimeter of triangles, rectangles, and squares – area and circumference of a circle, given radius or diameter – perimeter of a regular polygon, given one side – volume of rectangular prism or cylinder – sum of the measures of the angles in a triangle – sum of the measures of the angles in a rectangle **d.** Determining any dimension of a figure **e.** Determining any dimension of a figure when the dimension is expressed as an algebraic expression may be required.	Convex polygons Concave Polygons Sums Interior angle		Geometry	April Benchmark	
VII – 5 Determine measures of central tendency. **a.** The word "mean" will be used for the arithmetic average. **b.** The set of numbers used to assess the range will not be in numerical order. **c.** Decimals up to hundredths may be used. **d.** Decimals with different numbers of decimal digits may be used in the same item. **e.** Frequency diagrams may be used.	mean median mode range frequency	Item Specs. Glencoe Passing the AHSGE Exam View Pro Enrichment Plus	September	April Benchmark	
VII- 6 Determine probabilities. **a.** Both AND and OR situations may be included.	without replacement at random and/or		September	April Benchmark	
VII – 7 Solve problems involving direct variation. **a.** Diagrams may be used. **b.** Verbal descriptions of proportions may be used.	proportion direct variation varies directly		November December	April Benchmark	

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VII – 8 Solve problems involving algebraic concepts. **a.** Word problems will be used. **b.** Interpretation of figures may be required **c.** The following content may be included: distance/rate/time problems – money problems, which may require a system of equations – numbers (sum, difference, product, quotient) – simple age problems referring only to the present – consecutive integers – area, volume, dimension problems – quantity problems – cost problems – wage problems	Consecutive integers distance	Item Specs. Glencoe Passing the AHSGE Exam View Pro Enrichment Plus	Mixture throughout the year		