



Gulfport School District

HIGH SCHOOL PACING GUIDE

ALGEBRA I

QTR	COMPETENCY/OBJECTIVES
NUMBER AND OPERATIONS	
	1. Understand relationships between numbers and their properties and perform operations fluently.
1.1	a. Apply properties of real numbers to simplify algebraic expressions, including polynomials. (DOK 1)
1.1	b. Use matrices to solve mathematical situations and contextual problems. (DOK 2)
2.2	GSD 1: Simplify and perform basic operations on square roots excluding rationalizing denominators.
ALGEBRA	
	2. Understand, represent and analyze patterns, relations and functions.
1.1	a. Solve, check and graph multi-step linear equations and inequalities in one variable, including rational coefficients in mathematical and real-world situations.
1.1	b. Solve and graph absolute value equations and inequalities in one variable. (DOK 2)
2.1	c. Analyze the relationship between x and y values, determine whether a relation is a function, and identify domain and range. (DOK 2)
2.1	d. Explain and illustrate how a change in one variable may result in a change in another variable and apply to the concepts of independent and dependent variables. (DOK 2)
2.1	e. Graph and analyze linear functions. (DOK 2)
2.2	f. Use algebraic and graphical methods to solve systems of linear equations and inequalities in mathematical and real-world situations. (DOK 2)
1.1	g. Add, subtract, multiply, and divide polynomial expressions. (DOK 1)
1.2	h. Factor polynomials by using Greatest Common Factor (GCF) and factor quadratics that have only rational roots. (DOK 1)
2.1	i. Determine solutions to quadratic equations by using graphing, tables, completing the square , the Quadratic formula, and factoring. (DOK 1)
1.2	j. Justify why some polynomials are prime over the rational number system. (DOK 2)
2.1	k. Graph and analyze absolute value and quadratic functions. (DOK 2)
2.1	l. Write, graph, and analyze inequalities in two variables. (DOK 2)
GEOMETRY	
	3. Understand how algebra and geometry interconnect and build on one another.
2.1	a. Apply the concept of slope to determine if lines in a plane are parallel or perpendicular. (DOK 2)



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QTR	COMPETENCY/OBJECTIVES
GEOMETRY (continued)	
	3. Understand how algebra and geometry interconnect and build on one another.
1.2	b. Solve problems that involve interpreting slope as rates of change. (DOK 2)
MEASUREMENT	
	4. Demonstrate and apply various formulas in problem-solving situations.
1.2	a. Solve real-world problems involving formulas for perimeter, area, distance and rate. (DOK 2)
1.2	b. Explain and apply the appropriate formula to determine length, midpoint, and slope of a segment in a coordinate plane. (i.e., distance formula, Pythagorean Theorem) (DOK 2)
1.2	c. Represent polynomial operations with area models. (DOK 2)
DATA ANALYSIS and PROBABILITY	
	5. Represent, analyze and make inferences based on data with and without the use of technology.
2.2	a. Draw conclusions and make predictions from scatter plots. (DOK 3)
2.2	b. Use linear regression to find the line-of-best fit from a given set of data. (DOK 3)

1.1 indicates the first 4.5 weeks of the first 9 weeks test.
 1.1 and 1.2 combined indicate a comprehensive 1st 9 weeks test.
 2.1 indicates the first 4.5 weeks of the second 9 weeks test.
 2.1 and 2.2 combined indicate a comprehensive 2nd 9 weeks test.