Pacing Guide: Senior Trigonometry, Quarter 1

Day	ESSENTIAL OUTCOME	LEARNING GOAL(S)	Book Sections	SKILLS	SUGGESTED ACTIVTIES	ASSESSMENTs
DAYS: 12	**1. Polynomials.** Simplify polynomial expressions, add, subtract, and multiply polynomials.	Students will understand and be able to add, subtract and multiply monomials, binomials, and polynomials as well as compute with scientific notation.	5-1 5-2	Order of Operations, Using properties of real numbers, distributive property, FOIL	Writing activities, applications	Quarter 1 Pre-Test Quiz 1 Ch. 1 Test
DAYS: 10	**2. Polynomials & Factoring:** Divide polynomials and factor polynomials.	Students will understand and be able to divide a polynomial by a monomial, and by a binomial using synthetic division. Students will be able to factor trinomials by grouping, and recognize special factoring patterns. (Sum and difference of cubes, difference of squares)	5-3 5-4	Algebraic manipulation of variables, properties of real numbers and exponents.	White boards, non-linguistic representations	Quiz 2 Ch. 2 Test
DAYS: 10	**3. Roots:** Simplify mixed index roots, including rational, and perform 4 basic operations with roots.	Students will understand and be able to simplify mixed index roots with and without variables, add, subtract, and multiply radicals. Students will also be able to divide radicals and rationalize denominators. Students will be able to re-write and simplify rational exponent expressions.	5-5 5-6	Rules of exponents, simplifying roots, basic operations.	White boards, connecting topics Advance organizers	Quiz 3 Ch. 3 Test
DAYS: 11	**4. Radical Equalities and Complex Numbers:** Solve radical equalities, perform basic operations with complex numbers.	Students will understand and be able to solve equations with radicals, simplify the powers of *i*, and perform the 4 basic operations with complex numbers including the rationalizing of denominators.	5-7 5-8	Basic operations, rules of exponents, solving basic equations, extraneous solutions		Quiz 4 Ch. 4 Test Quarter 1 Final Exam

Pacing Guide: Senior Trigonometry, Quarter 2

Day	ESSENTIAL OUTCOME	LEARNING GOAL(S)	Book Sections	SKILLS	SUGGESTED ACTIVTIES	ASSESSMENTs
DAYS: 10	**1. Trigonometry Basics.** Define trig ratios for sine, cosine, and tangent.	Students will understand and be able to use the Pythagorean Theorem, Special Right Triangles and the three basic trig functions to solve for right triangles, including real world applications. (Using angles of elevation and depression)	13-1 13-2	Rules of exponents, simplifying radicals, making sketches	Applications, drawing	Quarter 2 Pre-Test Quiz 5 Ch. 5 Test
DAYS: 11	**2. Trigonometric Functions:** Angle relationships, Law of Sines	Students will understand and be able to use reference angles, trig functions and their inverses, find coordinates from trig ratios. They will also be able to use the Law of Sines to solve for triangles including real world applications, and finding the area of a triangle given SAS	13-3 13-4	Rules of exponents, solving equations, using a calculator Algebraic manipulation of equations	White boards, drawing	Quiz 6 Ch. 6 Test
DAYS: 8	**3. More Trig Functions:** Using the Law of Cosines, circular functions and periodic functions	Students will understand and be able to use the law of cosines to solve for triangles, circular and periodic functions and use inverse functions.	13-5 13-6 13-7	Rules for exponents, solving equations.	White boards, drawing	Quiz 7 Ch. 7 Test
DAYS: 14	**4. Graphing Trig Functions:** Graph the three basic trig functions and their transformations.	Students will understand and be able to graph the basic three trig functions (sine, cosine, and tangent) and the transformations on each. In addition, they will also understand the relationship of the functions (secant, cosecant, and cotangent) to the basic functions. Students will also be able to use trig identities to find values and simplify expressions.	14-1 14-2 14-3	Graphing, rules for transformations, basic operations		Quiz 8 Ch. 8 Test Quarter 2 Final Exam

Pacing Guide: Senior Probability and Statistics, Quarter 3

Day	ESSENTIAL OUTCOME	LEARNING GOAL(S)	Book Sections	SKILLS	SUGGESTED ACTIVTIES	ASSESSMENTs
DAYS: 17	**1. Sequences and Series:** Using Arithmetic and Geometric sequences and series.	Students will understand and be able to find missing terms (at end and middle of sequences), and write equations for the nth term. Students should be able to evaluate series, write series formulas and use formulas to solve for missing parts of series.	Alg 2: 11-1 11-2 11-3 11-4 11-7	Solving equations, basic operations, order of operations	Writing activities, applications, white boards	Quarter 3 Pre-Test Quiz 1 Ch. 1 Test
DAYS: 10	**2. Basic Probability:** Intro to probability, combinations and permutations	Students will understand and be able to contrast dependent and independent events, experimental and theoretical probability and perform simple permutations and combinations.	(Holt) Alg 1: 10-5 10-6 10-7 10-8		White boards, non-linguistic representations	Quiz 2 Ch. 2 Test
DAYS: 13	**3. Advanced Probability:** Using counting principle, factorials, permutations and combinations	Students will understand and be able to use the counting principal to find the number of possible outcomes, simplify factorial expressions, define and apply more advanced combinations and permutations, and find odds.	Alg 2: 12-1 12-2 12-3		White boards,	Quiz 3 Ch. 3 Test
DAYS: 7	**4. Multiple Events**: Determining multiple dependent and independent event probabilities	Students will understand and be able to contrast dependent and independent events, be able to determine the probabilities of mixed events.	12-4 12-5			Quiz 4 Ch. 4 Test Quarter 3 Final Exam

Pacing Guide: Senior Probability and Statistics, Quarter 4

Day	ESSENTIAL OUTCOME	LEARNING GOAL(S)	Book Sections	SKILLS	SUGGESTED ACTIVTIES	ASSESSMENTs
DAYS: 16	**Intro to Data**: Displaying data and error analysis	Students will understand and be able to organize data, determine the best method for display and create a variety of visual displays of data, including histograms, stem and leaf plots, box and whisker plots, and pie graphs. Students should also be able to identify samplings and biases as well as misleading graphs.	Holt Alg 1: 10-1 10-2 10-3 10-4	Graphing, organizational techniques	Charts, pie graphs	Qtr 4 Pre-Test Quiz 5 Ch 5 Test
DAYS: 15	**Distributions of Data:** Finding variation, standard deviations, normal distributions and binomial theorem	Students will understand and be able to find the variation and standard deviation of data sets, classify distributions and use properties of normal distributions to analyze data. Students will also be able to determine probabilities using the binomial theorem and determine margins of error.	12-6 12-7 12-8 12-9	Using formulas, simplifying radicals, finding probabilities	White boards, non-linguistic representations	Quiz 6 Ch 6 Test
DAYS: 5	**Finance:** Determining interest	Students will understand and be able to determine the amounts of interest both paid and earned using simple interest, compound interest and continuous interest methods.		Using exponents, using formulas	White boards,	Quiz 7 Ch 7 Test
DAYS: 4						Quarter 4 Final Exam