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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 1 | Wednesday, 8/7 |  |  | Rules, Syllabus, Books, and Introductions |  |
| Thursday, 8/8 | Linear Equations & Inequalities | P3 – Solving linear equations and inequalities in one variable | Warm up: Solve the given equation  **Class:** Notes, isolating the variable, using a number line to solve inequalities, text p 25-26 #1-59  **HW:** finish classwork | MA3A4a |
| Friday, 8/9 | Linear Equations & Inequalities | P4 – slope and intercepts; 2.1 – Graph linear functions; model situations | Warm up: define slope, explain how to find slope from two points, and also from a graph  **Class:** Notes, find slope and x and y intercepts, graph linear functions given the intercepts, p 36-38 #1-25,31-35,41-59  Class survey  **HW:** finish classwork | MA3A4a,b |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 2 | Monday, 8/12 | Absolute Value | P7 – Solve inequalities involving absolute values | Warm up: solve the given absolute value inequality  **Class:** Notes, find critical points and use number lines to solve absolute value inequalities, practice Worksheet  **HW:** finish worksheet | MA3A4a |
| Tuesday, 8/13 | Quadratics | P5 – Solve quadratic equations and graph quadratic functions; P7 – Solve quadratic inequalities | Warm up: solve the given quadratic equation, list different methods of solving quadratic equations  **Class:** Notes, graph quadratic functions by finding the vertex and intercepts, use Completing the square as another method of solving a quadratic equation, practice p 46 #1-34; p 58 #17-26  **HW:** finish classwork | MA3A4a,b |
| Wednesday, 8/14 | Quadratics | 2.1 – Use quadratics to model situations | Warm up: find the vertex and intercepts of the given function  **Class:** Notes, solve word problems using quadratic equations, students list steps in solving word problems, practice p 169-171 #7-12,13-22;54-64  **HW:** finish classwork | MA3A4a |
| Thursday, 8/15 | Piecewise Functions | 1.3 – Graph piecewise functions | Warm up: rewrite the given absolute value function as a piecewise function  **Quiz**  **Class:** Notes, practice graphing piecewise functions including step functions, worksheet  **HW:** worksheet | MA3A4a,b |
| Friday, 8/16 | Combining functions | 1.4 – Building new functions from basic functions by adding, subtracting, multiplying, dividing, and composing | Warm up: find the composition of the two given functions  **Class:** Notes, review adding and subtracting functions, multiplying and dividing functions, and using composition to build new functions, practice p 116-117 #1-8,11-30  **HW:** finish classwork | MA3A4c |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 3 | Monday, 8/19 | Linear, Absolute Value, Quadratic, Piecewise Functions | **Review** | Warm up: Define absolute value  **Class:** worksheet over linear, absolute value, piecewise, and quadratic functions  **HW:** study for test | MA3A4a,b |
| Tuesday, 8/20 |  |  | **TEST # 1** | MA3A4a,b |
| Wednesday, 8/21 | Power Functions and their behavior | 2.2 – Modeling power functions | Warm up: sketch the graph of a cubic function  **Class:** Notes, ask what a power function is, graph monomial functions; Model planetary data with a power function p179 Ex 5, practice p 182-183 #1-22,27-48,51-54  **HW:** finish classwork | MA3A4a |
| Thursday, 8/22 | Polynomial Functions and their behavior | 2.3 – find zeros of polynomial functions and graph them, transformations | Warm up: List intercepts, max/min, domain, range, and end behavior of given graph  **Class:** Notes, discuss characteristics of graphs: intercepts, max/min, domain, range, end behavior; graph transformations of monomial functions and discuss characteristics; practice p 193-194 #1-12,29-32,53-56  **HW:** finish classwork | MA3A4a,b |
| Friday, 8/23 | Polynomial Functions and their behavior | 2.3 – find zeros of polynomial functions and graph them | Warm up: Factor  **Class:** Notes, find zeros of polynomial functions by factoring, discuss expected shapes of graphs, practice worksheet  **HW:** p 193-194 #39-42,49-52 | MA3A4a |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 4 | Monday, 8/26 | Polynomial Functions and their behavior | 2.3 – polynomial end behavior and limits | | Warm up: Describe end behavior of three functions  **Class:** Notes, connect end behavior with limits of functions, practice worksheet  **HW:** p 209 #17-28 | MA3A4a |
| Tuesday, 8/27 | Polynomial Theorems | 2.4 – Division of polynomials; Remainder, Factor, and Rational Root Theorems | | Warm up: Factor  **Quiz over 2.2 – 2.3**  **Class:** Notes, discuss finding zeros of unfactorable functions, review long division of polynomials, synthetic division, practice p205-206 #1-24,27-32  **HW:** finish classwork | MA3A4a,c |
| Wednesday, 8/28 | Polynomial Theorems | 2.4 – Division of polynomials; Remainder, Factor, and Rational Root Theorems; finding upper and lower bounds for zeros of polynomials | | Warm up: find the possible roots of given function  **Class:** Notes, discuss Rational Root Theorem, Upper and Lower Bound Test for Real Zeros, practice p206 #37-48  **HW:** p206 #49-56 | MA3A4a,c |
| Thursday, 8/29 | Polynomials with complex zeros | 2.5 – Factoring polynomials with real coefficients using complex factors | | Warm up: Determine how many and what kind of roots 3 different quadratic functions have.  **Class:** Exploration 1 p212: What can happen if the coefficients are not real? discuss complex zeros, Fundamental Theorem of Algebra, Linear Factorization Theorem , practice p215 #1-26  **HW:** finish classwork | MA3A4a |
| Friday, 8/30  **Professional**  **Learning**  **Early Release** | Polynomials with complex zeros | | 2.5 – Factoring polynomials with real coefficients using factors with complex coefficients | Warm up: Simplify the given expression    **Class:** Continue practice with complex zeros p215-216 #27-44  Where are areas that students need to slow down and be careful?  **HW:** finish classwork | MA3A4a |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 5 | Monday, 9/2 | **LABOR DAY HOLIDAY** | | | |
| Tuesday, 9/3 | Rational functions | 2.6 – Transforming the graphs of rational functions | Warm up: Define parent function, give three examples of parent functions  **Quiz over 2.2 – 2.5**  **Class:** Ask students to define rational function using mathematic terminology, graph , discuss domain, range, continuity, increasing/decreasing, symmetry, extrema, asymptotes, end behavior (as limits); graph transformations of the parent function, discuss transforming the reciprocal function before graphing, practice p225 #1-18  **HW:** finish classwork | MA3A1a, MA4Ab |
| Wednesday, 9/4 | Rational functions | 2.6 –Identifying asymptotes of rational functions | Warm up: Define asymptote and intercepts  **Class:** discuss finding horizontal, vertical, and slant asymptotes, intercepts; practice p225-226 #19-36  **HW:** finish classwork | MA3A1a |
| Thursday, 9/5 | Rational functions | 2.6 – predicting end behavior of rational functions | Warm up: Predict end behavior of linear, quadratic, cubic, quartic functions  **Class:** Class activity: match functions with end behavior, practice p225-226 #37-44,51-62  **HW:** finish classwork | MA3A1a |
| Friday, 9/6 | Rational functions | 2.7 – Solving rational equations graphically and algebraically | Warm up: Quick review p232 #3,45,6  **Quiz over 2.2 – 2.6**  **Class:** Review LCD, solving by clearing fractions, practice p232-233 #2-22 even  HW:p232-233 #1-21 odd | MA3A1b,c |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 6 | Monday, 9/9 | Rational functions | 2.7 – Solving rational equations graphically and algebraically; finding inverses | Warm up: Quick review p232 #1  **Class:** Discuss extraneous solutions, solve example 2 p229 and show graph to support answer practice p233-234 #23-30,32-35,39-42; inverses worksheet  **HW:** finish classwork | MA3A1b,c |
| Tuesday, 9/10 | Rational functions | 2.8 – Solving rational inequalities graphically and algebraically | Warm up: Quick review p242 #8  **Class:** Find critical values of Example 1 p236 and then use sign chart to determine solutions of inequality, Exploration 1 p237 Sketching a graph of a polynomial from its sign chart, practice p242-243 #1-32  **HW:** finish classwork | MA3A1c |
| Wednesday, 9/11  **Performance Essay**  **ENGLISH &**  **FINE ARTS** | Rational functions | 2.8 – Solving rational inequalities graphically and algebraically | Warm up: Quick review p242 #10  **Class:** Continue to practice p265-266 #33-54,56-61  **HW:** p246-247 #9,17,18,26,29,32,34,35,37 | MA3A1c |
| Thursday, 9/12 |  | **Review** | Warm up: Discuss the Factor Theorem and the Remainder Theorem  **Class:** Review of Unit 2 – Polynomial functions p246-247 #40,49,53,60,64,68,70,74,76,85  **HW:** study for test | MA3A1a,b,c |
| Friday, 9/13 |  |  | **TEST # 2** | MA3A1a,b,c |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 7  Benchmark  #1 | Monday, 9/16  ELECTIVES | Exponential and logistic problems | 3.1 – Evaluate exponential expressions and identify and graph exponential and logistic functions including transformations | Warm up: Graph  **Class:** Review exponential functions – growth and decay, p261-263 #1-40,55-58  **HW:** finish classwork | MA3A4a,b |
| Tuesday, 9/17  ENGLISH |  | **Review for benchmark** | Warm up: Describe end behavior of 3 functions  **Class:** Review functions and polynomials, worksheet  **HW:** study for benchmark | MA3A3a,b,c; MA3A4a,b,c |
| **Wednesday, 9/18**  **MATH** |  |  | **MATH Benchmark #1** | **MA3A3a,b,c; MA3A4a,b,c** |
| Thursday, 9/19  SCIENCE | Exponential and logistic modeling | 3.2 – Exponential growth, decay and regression to model real life problems | Warm up: Quick review p270 #3-4  **Class:** Discuss population change at a constant percent,p266 Examples 2-4, practice p 270-271 #1-35  **HW:** finish classwork | MA3A4a |
| Friday, 9/20  SOCIAL STUDIES | Logarithmic functions | 3.3 – Converting logarithmic and exponential equations; evaluate and graph common and natural logarithms including transformations | Warm up: Quick review p280 #6,10  **Class:** Review basic properties of logs, graph parent log and natural log function, review transformations, practice p 281-282 #1-46  **HW:** finish classwork | MA3A4a |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 8 | Monday, 9/23 | Logarithmic functions | 3.3 – Converting logarithmic and exponential equations; evaluate and graph common and natural logarithms including transformations | | Warm up: Match four logarithmic graphs with functions  **Class:** Review homework, discuss characteristics of the functions in warm up, practice p281-282 #47-58,63-68,72-74  **HW:** finish classwork | MA3A4a,b |
| Tuesday, 9/24 | Logarithmic functions | 3.4 – Properties of logarithms | | Warm up: Exploration 2 p285 #1,3,8,10  **Quiz over 3.1-3.3**  **Class:** Review Exploration 2 with students, have them determine the Product, Quotient, and Power properties of logs, discuss change of base, practice p 289 #1-38  **HW:** finish classwork | MA3A4a |
| Wednesday, 9/25  **Graduation**  **Writing Test** |  |  | | **Graduation Writing Test**  Review of exponential and logistic functions |  |
| Thursday, 9/26 | Logarithmic functions | 3.4 – Properties of logarithms | | Warm up: Matching p289 #43-46  **Class:** Review HW, continue practice p289-290 #39-42,47-50,52-55, 63,64  **HW:** finish classwork | MA3A4a |
| Friday, 9/27  **Homecoming**  **Early Release** | Exponential, logistic, and logarithmic modeling | | 3.5 - Exponential growth, decay and regression and logarithmic functions to model real life problems | Warm up: Quick Review p300 #5,7,10  **Class:** Review HW, review scientific notation and the need for it; solving exponential and logarithmic equations example 1,3; reading word problems example 5,7; practice p301-302 #1-38  **HW:** finish classwork | MA3A4a |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 9 | Monday, 9/30 | Exponential, logistic, and logarithmic modeling | 3.5 - Exponential growth, decay and regression and logarithmic functions to model real life problems | Warm up: Determine by how many orders of magnitude a $100 bill and a dime differ  **Class:** Review HW; discuss orders of magnitude, how to tackle word problems, practice p301-302 #39-50,  **HW:** finish classwork | MA3A4a |
| Tuesday, 10/1 | Exponential, logistic, and logarithmic modeling | 3.5 - Exponential growth, decay and regression and logarithmic functions to model real life problems | Warm up: Enter data into calculator  **Quiz over 3.1 -3.5**  **Class:** Logistic regression activity graphing calculator problems  **HW:** worksheet | MA3A4a |
| Wednesday, 10/2 | Exponential & Logarithmic functions | 3.6 – Exponential and logarithmic functions and equations to solve business and finance applications related to compound interest and annuities | Warm up: How much money will Mary have if she invests $2500 at 3% interest compounded monthly for 10 years?  **Class:** Review compound interest and interest compounded continuously, annuities, loans, mortgages, example 9 p310 – calculating loan payments, practice p310-311 #1-40,45-46,49-56  **HW:** finish classwork | MA3A4a |
| Thursday, 10/3 |  | Review | Warm up: List the properties of logs  **Class:** Review of Unit 3 – Exponential, Logistic and Logarithmic functions p314-315 #1,4,10,12,14,15,22,34,38,40,52,53,59-62,64,67,74  **HW:** study for test | MA3A4a,b |
| Friday, 10/4 |  |  | **TEST # 3** | MA3A4a,b |

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| **WEEK** | **DAY** | **CONCEPT** | | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 10 | Monday, 10/7 | Functions and their properties | | 1.2 – Represent functions numerically, graphically; analyze function characteristics such as domain, range,extrema, symmetry, asymptotes, end behavior | Warm up: Quick review p94 #9  **Class:** Discuss vertical line test, domain, range, extrema, interval notation,inc/dec, odd/even functions p94-97 practice #5-8,10-40 even  **HW:** p95 #29-61 odd | MA3A1a,b  MA3A4a,b,c |
| Tuesday, 10/8 | 12 Basic Functions | | 1.3 – Recognize the graphs of 12 basic functions, determine domains and combine these functions to create new functions | Warm up: List as many families of functions as you can and sketch the parent of each  **Class:** Review HW, discuss the different functions from the warm up, compare characteristics, p106-107 #1-28,35-42,45-52,68,69  **HW:** finish classwork | MA3A1a,b  MA3A4a,b,c |
| Wednesday, 10/9  **Perf Essay**  **SOCIAL STUDIES &**  **CTAE** | Building functions from functions | | 1.4 – Build new functions from basic functions by adding/subtracting, multiplying/dividing, & composing functions | Warm up: Explain the steps in composing functions  **Class:** Notes, p116-117 #1-36; practice with graphing calculators  **HW:** finish classwork | MA3A1a,b  MA3A4a,b,c |
| Thursday, 10/10 | Graphical Transformations | | 1.6 – Algebraically and graphically represent translations, reflections, stretches/shrinks of functions | Warm up: Create a function from each of three different families of functions & describe the transformations  **Quiz over 1.2,3,4**  **Class:** Ask students to explain translations, reflections, stretches and shrinks; practice graphing p136-137 #1-28  **HW:** finish classwork | MA3A1a,b  MA3A4a,b,c |
| Friday, 10/11 | Graphical Transformations | | 1.6 – Algebraically and graphically represent translations, reflections, stretches, and shrinks of functions and parametric relations | Warm up: determine function from graph  **Class:** Review HW; discuss any questions involving transformations, reflect upon similarity of written functions, practice p137 #39-55  **HW:** p138 #57-58 | MA3A1a,b  MA3A4a,b,c |
| **WEEK** | **DAY** | **CONCEPT** | | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 11 | Monday, 10/14 | **FALL HOLIDAY!** | | | | |
| Tuesday, 10/15 | **Professional Learning Day (Student Holiday)** | | | | |
| Wednesday, 10/16  **PSAT and**  **College Fair** | Functions | Review Game | | Warm up: determine function from graph  **Class:** Review game of the 12 basic functions  **HW:** none | MA3A1a,b  MA3A4a,b,c |
| Thursday, 10/17  **Fall Festival**  **Early Release** | Modeling with functions | 1.7 – identify functions, model real-world applications | | Warm up: Quick review p148 #1,5,7  **Quiz over 1.2,3,4,6**  **Class:** Notes, p148-149 #1-30  **HW:** finish classwork | MA3A1a,b  MA3A4a,b,c |
| Friday, 10/18  **Professional**  **Learning**  **Early Release** | Modeling with functions | 1.7 – identify functions, model real-world applications | | Warm up: Quick review p148 #1,5,7  **Quiz over 1.2,3,4,6**  **Class:** Notes, p148-149 #1-30  **HW:** finish classwork | MA3A1a,b  MA3A4a,b,c |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 12 | Monday, 10/21 | Modeling with functions | 1.7 – identify functions, model real-world applications | Warm up: p149 #31  **Class:** Review HW, continue practice p149 #32-39  **HW:** p152-154 #1-10, 11-23 odd, 27,42,45,46,53,62 | MA3A1a,b  MA3A4a,b,c |
| Tuesday, 10/22 |  | **Review** | Warm up: p154 #61  **Class:** Review of Unit 1.2,3,4,6,7 | MA3A1a,b  MA3A4a,b,c |
| Wednesday, 10/23 |  |  | **TEST # 4** | MA3A1a,b  MA3A4a,b,c |
| Thursday, 10/24 | Sequences | 9.4 – express arithmetic and geometric sequences explicitly and recursively; find limits of convergent sequences | Warm up: Quick review p675 #5,8  **Class:** Review arithmetic and geometric sequences; ask students if they know recursive; discuss infinite sequences and convergence/divergence; p671 Example 3,4; p676 #2-32 even,  **HW:** p676 #1-31 odd | MA3A9a,b,c |
| Friday, 10/25 | Sequences | 9.4 – express arithmetic and geometric sequences explicitly and recursively; find limits of convergent sequences | Warm up: Group activity p676 #41  **Class:** Review HW, continue practice p676-677 #37-40  **HW:** p677 #43-48 | MA3A9a,b,c |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 13  Benchmark  #2 | Monday, 10/28  **ELECTIVES** | Series | 9.5 – Use sigma notation and find finite sums of terms in arithmetic and geometric sequences | Warm up: Find the sum of the natural numbers from 1 to 100 without a calculator  **Class:** Review HW; discuss sigma notation, sum of arithmetic & geometric series, discuss difference in finite & infinite, practice p684 #2-30 even  **HW:** p684 #1-29 odd | MA3A9e,f,g |
| Tuesday, 10/29  **SOCIAL STUDIES** |  | Review | Warm up: Write as a piecewise function  **Class:** Review of Units P3,4,5,7; 1.2-4,6; 2.1-8;3.1-6;9.4 worksheet  **HW:** review worksheet | MA3A3a,b,c; MA3A4a,b,c; MA3A9a,b,c |
| Wednesday, 10/30  **ENGLISH** |  | Review | Warm up:  **Class:** Review of Units P3,4,5,7; 1.2-4,6; 2.1-8;3.1-6;9.4 worksheet  **HW:** study for benchmark | MA3A3a,b,c; MA3A4a,b,c; MA3A9a,b,c |
| **Thursday, 10/31**  **MATH** |  |  | **Math Benchmark #2** | **MA3A3a,b,c; MA3A4a,b,c; MA3A9a,b,c** |
| Friday, 11/1  **SCIENCE** | Series | 9.5 – Use sigma notation and find finite sums of terms in arithmetic and geometric sequences; find sums of convergent geometric series | Warm up: Find the sum of the given infinite series  **Class:** Limits of partial sums; p682 Example 3; practice p684-685 #35-36; group activity p685 #39  **HW:** p685 #40-46 | MA3A9e,f,g |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 14 | Monday, 11/4 | Series | 9.5 – Use sigma notation and find finite sums of terms in arithmetic and geometric sequences; find sums of convergent geometric series | Warm up: find the sum of the given infinite series  **Class:** Review HW; Extending the concepts of sequences and series p686 #49-51  **HW:** p686 #52 | MA3A9e,f,g |
| Tuesday, 11/5 |  | **Review** | Warm up: Discuss factoring cubic functions  **Class:** Ask students to trade warm up answers and improve upon them; discuss how performance essays are graded  **HW:** study for performance essay |  |
| **Wednesday, 11/6**  **Performance Essay**  **MATH &**  **FOREIGN LANG** |  |  | **Math Performance Essay** |  |
| Thursday, 11/7  **Half day due to**  **Perf Exam grading** | Mathematical Induction | 9.6 – Use the principle of mathematical induction to prove mathematical generalizations | Warm up: Quick review p690 #3,6,9  **Class:** Worksheet on induction/deduction  **HW:** finish worksheet | MA3A9d |
| Friday, 11/8 | Mathematical Induction | 9.6 – Use the principle of mathematical induction to prove mathematical generalizations | Warm up: p690 #4  **Quiz over 9.4,5**  **Class:** Review worksheet on induction/deduction; discuss meaning of the words; practice p690-691 #2,6,10,14,21-24  **HW:** p690 #7,9,13,25-33 odd | MA3A9d |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 15 | Monday, 11/11 |  | 9.6 – Use the principle of mathematical induction to prove mathematical generalizations | Warm up: partners: p691 #36 writing to learn  **Class:** Discuss answers to warm up; review HW; continue practice p691-692 #37-42  **HW:** review worksheet | MA3A9d |
| Tuesday, 11/12 |  | **Review** | Warm up:  **Class:**  Review Unit 9.4-6 worksheet  **HW:** study for test | MA3A9a,b,c,d,e,f,g |
| Wednesday, 11/13 |  |  | **TEST # 5** | MA3A9a,b,c,d,e,f,g |
| Thursday, 11/14 |  | Statistics  There are 15 days for this. | Warm up:  **Class:** Notes,  **HW:** | MA3D1;  MA3D2;  MA3D3 |
| Friday, 11/15 |  |  | Warm up:  **Class:** Notes,  **HW:** |  |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 16 | Monday, 11/18 |  |  | Warm up:  **Class:** Notes,  **HW:** |  |
| Tuesday, 11/19 |  |  | Warm up:  **Class:** Notes,  **HW:** |  |
| Wednesday, 11/20 |  |  | Warm up:  **Class:** Notes,  **HW:** |  |
| Thursday, 11/21 |  |  | Warm up:  **Class:** Notes,  **HW:** |  |
| Friday, 11/22 |  |  | Warm up:  **Class:** Notes,  **HW:** |  |
| **THANKSGIVING BREAK!** | | | | | |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 17 | Monday, 12/2 | Statistics |  | Warm up:  **Class:** Notes,  **HW:** |  |
| Tuesday, 12/3 |  |  | Warm up:  **Class:** Notes,  **HW:** |  |
| Wednesday, 12/4  **Performance**  **Essay**  **SCIENCE &**  **HEALTH/PE** |  |  | Warm up:  **Class:** Notes,  **HW:** |  |
| Thursday, 12/5 |  |  | Warm up:  **Class:** Notes,  **HW:** |  |
| Friday, 12/6 |  |  | Warm up:  **Class:** Notes,  **HW:** |  |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 18 | Monday, 12/9 |  |  | Warm up:  **Class:** Notes,  **HW:** |  |
| Tuesday, 12/10 |  |  | Warm up:  **Class:** Notes,  **HW:** |  |
| Wednesday, 12/11 |  |  | Warm up:  **Class:** Notes,  **HW:** |  |
| Thursday, 12/12 |  | Review for final | Warm up:  **Class:** Review  **HW:** Review | MA3A3a,b,c; MA3A4a,b,c; MA3A9a,b,c |
| Friday, 12/13 |  | Review for final | Warm up:  **Class:** Review  **HW:** Review | MA3A3a,b,c; MA3A4a,b,c; MA3A9a,b,c |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 19  Benchmark Week #3 | Monday, 12/16 |  | | **Review for Final Exam** |  | MA3A3a,b,c; MA3A4a,b,c; MA3A9a,b,c |
| Tuesday, 12/17 | **Semester Exams (Benchmark #3) – 7th Period** | | | | |
| Wednesday, 12/18 | **Semester Exams (Benchmark #3) – 1st & 2nd Periods** | | | | |
| Thursday, 12/19 | **Semester Exams (Benchmark #3) – 3rd & 4th Periods** | | | | |
| Friday, 12/20 | **Semester Exams (Benchmark #3) – 5th & 6th Periods** | | | | |

**End 1st Semester**

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 1 | Monday, 1/6 | **Professional Learning Day (Student Holiday)** | | | |
| Tuesday, 1/7 | Angles and their measures | 4.1 – Convert between radians and degrees, find arc lengths, convert to nautical miles, solve for angular speed | Warm up: Quick review p325 #1,3,7,132  **Class:** Discuss angle measurement – latitude and longitude; Example 1p321; Exploration 1 – construct a 1-radian angle; ask students to find conversion formulas; practice p325 #2- 24 even  **HW:** p325 #1-23 odd | MA3A2a |
| Wednesday, 1/8 | Angles and their measures | 4.1 –find arc lengths, convert to nautical miles, solve for angular speed | Warm up: find the arc length of the given circle problem (using inches)  **Class:** Review HW; discuss finding the arc length in radians; find radian and also degree measure arc length formulas; Example 3 perimeter of a pizza; practice p325-326 #25-32  **HW:** p325-326 #33-43 | MA3A2a |
| Thursday, 1/9 | Angles and their measures | 4.1 – Convert between radians and degrees, find arc lengths, convert to nautical miles, solve for angular speed | Warm up: Convert given problem to radians  **Class:** Review HW; continue practice word problems p326 -327 #45,48,50,52,54  **HW:** p326-327 #46,49,51,53 | MA3A2a |
| Friday, 1/10 | Trigonometric functions of acute angles | 4.2 – define the six trigonometric functions using the lengths of the sides of a right triangle | Warm up: Quick review p334 #1,3,6,10  **Class:** Review HW; Review sine, cosine, tangent and introduce secant, cosecant, and cotangent functions; Exploration 1 p330; discuss special triangles; practice p335 #2-24 even  **HW:** p335 #1-23 odd | MA3A2b,c |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 2 | Monday, 1/13 | Trigonometric functions of acute angles | 4.2 – define the six trigonometric functions using the lengths of the sides of a right triangle | Warm up: Find the height of a building using three different trig functions  **Class:** Review HW; Discuss using a calculator to solve problems – radian mode or degree? practice p335 #26-54 even  **HW:** p335 #25-53 odd | MA3A2b,c |
| Tuesday, 1/14 | Trigonometric functions of acute angles | 4.2 – define the six trigonometric functions using the lengths of the sides of a right triangle | Warm up: Find the length of the runway  **Class:** Review HW, more practice word problems #63,66,73-74  **HW:** 75-76 | MA3A2b,c |
| Wednesday, 1/15 | The Circular Functions | 4.3 – Solve problems involving the trigonometric functions of real numbers and the properties of sine and cosine as periodic functions | Warm up: Quick review #1-4  **Class:** Review HW, Extending trig functions to circular functions; Exploration 1 p339; practice worksheet finding trig functions of any angle; #2-12 even  **HW:** #1-15 odd | MA3A2d,e |
| Thursday, 1/16 | The Circular Functions | 4.3 – Solve problems involving the trigonometric functions of real numbers and the properties of sine and cosine as periodic functions | Warm up: Quick review #5-10  **Class:** Review HW; finding trig functions of angles >360° or <0°; practice #18-36 even  **HW:** #19-35 odd | MA3A2d,e |
| Friday, 1/17 | The Circular Functions | 4.3 – Solve problems involving the trigonometric functions of real numbers and the properties of sine and cosine as periodic functions | Warm up: Evaluate the given functions without a calculator  **Class:** Review HW; exploration 2 – exploring the unit circle; #38-52 even  **HW:** #37-51 odd | MA3A2d,e |
| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 3 | Monday, 1/20 | **MLK HOLIDAY** | | | |
| Tuesday, 1/21 | The Circular Functions | 4.3 – Solve problems involving the trigonometric functions of real numbers and the properties of sine and cosine as periodic functions | Warm up: Draw the unit circle and label the sections  **Class:** Review HW; group activity #53; apply previous lessons to solving word problems #56-60 even  **HW:** #55-59 odd | MA3A2e |
| Wednesday, 1/22 |  | Review | Warm up: p401 #100  **Class:** Review HW; Review exercises p 399-401 #10,14,24,30,35,36,37,40,49  **HW:** study for test | MA3A2a,b,c,d,e |
| Thursday, 1/23 |  |  | **TEST #1** | MA3A2a,b,c,d,e |
| Friday, 1/24 | Graphs of sine and cosine | 4.4 – Generate the graphs of the sine and cosine functions and explore various transformations of those graphs | Warm up:Quick Review #1-6  **Class:** Exploration 1 Graphing sint as a function of t; graph cost; example 1,2  **HW:** #1-6 | MA3A3a,b,c,d |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 4 | Monday, 1/27 | Graphs of sine and cosine | 4.4 – Generate the graphs of the sine and cosine functions and explore various transformations of those graphs | Warm up: Quick review #7-8  **Class:** Review HW; Explore Frequency of sinusoid example 3, and phase shift, example 4,5; practice #8-16 even  **HW:** #7-15 odd | MA3A3a,b,c,d |
| Tuesday, 1/28 | Graphs of sine and cosine | 4.4 – Generate the graphs of the sine and cosine functions and explore various transformations of those graphs | Warm up: Quick review #9-10  **Class:** Review HW; Graphs of Sinusoids, example 5,6; practice #18-40 even  HW: #19-39 odd | MA3A3a,b,c,d |
| Wednesday, 1/29 | Graphs of sine and cosine | 4.4 – Generate the graphs of the sine and cosine functions and explore various transformations of those graphs | Warm up: p358 #73 (Partners)  **Class:** Review HW; Constructing a sinusoidal model using time exploration p355; example 7  **HW:** #74-76 | MA3A3a,b,c,d |
| Thursday, 1/30 | Graphs of tangent, cotangent, secant, and cosecant | 4.5 - Generate the graphs of the tangent, cotangent, secant, and cosecant functions and explore various transformations of those graphs | Warm up: Graph the tangent function (partners)  **Class:** Review HW; graphing tangent, cotangent functions Example 1,2: #2,4,6,10,17,22  **HW:** #5,9,20,21,24,25,28 | MA3A3a,b,c,d |
| Friday, 1/31 | Graphs of tangent, cotangent, secant, and cosecant | 4.5 - Generate the graphs of the tangent, cotangent, secant, and cosecant functions and explore various transformations of those graphs | Warm up:Quick review #1-4  **Class:** Review HW; graphing secant, cosecant functions  Example 3,4; #1,2,8,12,18,  **HW:** #7,11,19,23,26 | MA3A3a,b,c,d |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 5 | Monday, 2/3 | Graphs of tangent, cotangent, secant, and cosecant | 4.5 - Generate the graphs of the tangent, cotangent, secant, and cosecant functions and explore various transformations of those graphs | Warm up: Quick review #5-8  **Class:** Review HW; solving for x in a given interval; practice #30-38 even; writing to learn #41  **HW:** 31-39 odd, 42 | MA3A3a,b,c,d |
| Tuesday, 2/4 | Graphs of tangent, cotangent, secant, and cosecant | 4.5 - Generate the graphs of the tangent, cotangent, secant, and cosecant functions and explore various transformations of those graphs | Warm up: Quick review #9-10  **Class:** Review HW; continue practice by applying functions to word problems #42-50 even  **HW:** #43-49 odd | MA3A3a,b,c,d |
| Wednesday, 2/5  Performance Essay  ENGLISH &  FINE ARTS | Inverse trigonometric functions | 4.7 – Relate the concept of inverse functions to trigonometric functions | Warm up: Quick review #1-4  **Class:** Review HW; finding exact values of inverse trig functions; practice problems #2-32 even  **HW:** #7-27 odd | MA3A8a,b |
| Thursday, 2/6 | Inverse trigonometric functions | 4.7 – Relate the concept of inverse functions to trigonometric functions | Warm up: Quick review #5-6  **Class:** Review HW; Analyzing characteristics of trig functions; #34-52 even  **HW:** #33-51 odd | MA3A8a,b |
| Friday, 2/7 | Inverse trigonometric functions | 4.7 – Relate the concept of inverse functions to trigonometric functions | Warm up: Quick review #7-10  **Class:** Review HW; apply inverse trig functions to solve word problems #53, 54  **HW:** #55,56,57-62 | MA3A8a,b |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 6  Benchmark  #1 | Monday, 2/10  ELECTIVES | Applications of trigonometry | 4.8 – Apply the concepts of trigonometry to solve real world problems | Warm up: Quick review #1-4  **Class:** Review HW; apply trig to solve word problems; practice example 1,2,3,4 with partners  **HW:** #1-9 odd | MA3A3d |
| Tuesday, 2/11  SCIENCE | Applications of trigonometry | 4.8 – Apply the concepts of trigonometry to solve real world problems | Warm up: Quick review #5-8  **Class:** Review HW; continue to practice word problems – exploration 1; example 5 harmonic motion  **HW:** #11-23 odd | MA3A3d |
| Wednesday, 2/12  SOCIAL STUDIES | Applications of trigonometry | 4.8 – Apply the concepts of trigonometry to solve real world problems | Warm up: Quick review #9-10  **Class:** Review HW; continue practice #24-33 partners  **HW:** review worksheet | MA3A3d |
| Thursday, 2/13  ENGLISH |  | Review for benchmark | Warm up: graph f(x)=sin(x+π)  **Class:** Review HW; benchmark review worksheet  **HW:** study for benchmark | MA3A2a,b,c,d,e  MA3A3a,b,c,d |
| Friday, 2/14  MATH |  |  | **MATH Benchmark #1** | MA3A2a,b,c,d,e  MA3A3a,b,c,d |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 7 | Monday, 2/17 | **Winter Holiday!** | | | |
| Tuesday, 2/18 | **Professional Learning Day** | | | |
| Wednesday, 2/19 |  | Review for test | Warm up: Solve given word problem  **Class:** Review HW; Unit 4.4-8 review p400-401 #53-106  **HW:** study for test | MA3A3a,b,c,d  MA3A6a  MA3A8a,b |
| Thursday, 2/20 |  |  | **TEST #2** | MA3A3a,b,c,d  MA3A6a  MA3A8a,b |
| Friday, 2/21 | Fundamental Trigonometry Identities | 5.1 – Use the fundamental trigonometric identities to simplify expressions | Warm up: Quick review #1-4  **Class:** Review HW; finding the Pythagorean Identities; simplifying trig expressions, example 1,2,practice #2-50 even  **HW:** #1-49 every other odd | MA3A5 |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 8 | Monday, 2/24 | Fundamental Trigonometry Identities | 5.1 – Use the fundamental trigonometric identities to simplify expressions | Warm up: Quick review #5-8  **Class:** Review HW; solving trig equations, example 6,7, practice #52-74 even  **HW:** #51-73 odd | MA3A5 |
| Tuesday, 2/25 | Fundamental Trigonometry Identities | 5.1 – Use the fundamental trigonometric identities to simplify expressions | Warm up: Quick review #9-12  **Class:** Review HW; more practice with identities worksheet  **HW:** #75-80,81,82 | MA3A5 |
| Wednesday, 2/26  Performance Essay  SOCIAL STUDIES &  CTAE | Proving trigonometric identities | 5.2 – To confirm identities analytically | Warm up: Quick review #1-4  **Class:** Review HW; proving trig identities discuss general strategies – how does a proof begin? end? example 1,2,3 practice #2-20 even  **HW:** #1-21 odd | MA3A5 |
| Thursday, 2/27 | Proving trigonometric identities | 5.2 – To confirm identities analytically | Warm up: Quick review #5-6  **Class:** Review HW; continue proofs of identities example 4,5, practice #24-40 even  **HW:** #25-41 odd |  |
| Friday, 2/28 | Proving trigonometric identities | 5.2 – To confirm identities analytically | Warm up: Quick review #7-12  **Class:** Review HW; Identities in calculus – example 6, practice #42-56 even  **HW:** #43-57 odd | MA3A5 |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 9 | Monday, 3/3 | Sum and Difference Identities | 5.3 – Apply the identities of sine, cosine, and tangent of a sum or difference | Warm up: Quick review #1-6  **Class:** Review HW; Quiz Unit 5.1,2; Exploration 1 Getting past the obvious but incorrect formulas; Ex 1; Cosine of a sum or difference; Sine of a sum or difference; Ex 2,3; practice #2-14 even  **HW:** #1-15 odd | MA3A5 |
| Tuesday, 3/4 | Sum and Difference Identities | 5.3 – Apply the identities of sine, cosine, and tangent of a sum or difference | Warm up: Quick review #7-10  **Class:** Review HW; Ex 4 Proving reduction formulas; Tangent of a difference or sum Ex 6; practice #16-34 even  **HW:** #17-33 odd | MA3A5 |
| Wednesday, 3/5 | Sum and Difference Identities | 5.3 – Apply the identities of sine, cosine, and tangent of a sum or difference | Warm up: p450 #4  **Class:** Review HW; continued practice #36-54 even  **HW:** #35-55 odd | MA3A5 |
| Thursday, 3/6 |  | Review for test | Warm up: p451 #8  **Class:** Review HW; Review Unit5.1,2,3: practice #1-22  **HW:** review for test | MA3A5 |
| Friday, 3/7 |  |  | **TEST #3** | MA3A5 |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 10 | Monday, 3/10 | Multiple angle identities | 5.4 – Apply the double angle, power reducing, and half angle identities | Warm up: Quick review #1-4  **Class:** Review HW; present double angle identities and power reducing identities ex 1,2,3; practice #2-20 even  **HW:** #1-21 odd | MA3A5 |
| Tuesday, 3/11 | Multiple angle identities | 5.4 – Apply the double angle, power reducing, and half angle identities | Warm up: Quick review #5-8  **Class:** Review HW; Half angle identities ex2,3; Exploration 1 finding the sine of half an angle, practice #24-38 even  **HW:** #25-37 odd | MA3A5 |
| Wednesday, 3/12 | Multiple angle identities | 5.4 – Apply the double angle, power reducing, and half angle identities | Warm up: Quick review #9-10  **Class:** Review HW; solving trig equations ex 4,5; practice #40-52 even  **HW:** #41-53 odd | MA3A5 |
| Thursday, 3/13 | Law of Sines | 5.5 – Prove the Law of Sines and use the computational applications to solve a variety of problems | Warm up: Quick review #1-4  **Class:** Review HW; Law of Sines; Ex 1; Exploration 1 Determining the number of triangles; Ex 2,3; practice #2-24 even  **HW:** #1-23 odd | MA3A6c |
| Friday, 3/14 | **Professional Learning (Student Holiday)** | | | |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 11 | Monday, 3/17 | Law of Sines | 5.5 – Prove the Law of Sines and use the computational applications to solve a variety of problems | Warm up: Quick review #5-6  **Class:** Review HW; applications of the Law of Sines, Ex4,5; practice #26-38 even  **HW:** #25-37 odd | MA3A6c |
| Tuesday, 3/18 | Law of Sines | 5.5 – Prove the Law of Sines and use the computational applications to solve a variety of problems | Warm up: Quick review #7-10  **Class:** Review HW; continue practice applications #40-52 even  **HW:** #39-51 odd | MA3A6c |
| Wednesday, 3/19  Performance Essay  MATH &  FOREIGN LANG |  |  | **MATH Performance Essay** |  |
| Thursday, 3/20  **Professional**  **Learning**  **Early Release** | Law of Cosines | 5.6 - Prove the Law of Cosines and use the computational applications to solve a variety of problems | Warm up: Quick review #1-4  **Class:** Review HW; Students derive the law of cosines; Review of SSS and SAS; Ex 1,2, practice #2-16 even  **HW:** #1-15 odd | MA3A6c |
| Friday, 3/21  **Professional**  **Learning**  **Early Release** | Law of Cosines | 5.6 - Prove the Law of Cosines and use the computational applications to solve a variety of problems | Warm up: Quick review #5-6  **Class:** Review HW; Area of a triangle; Heron’s Formula; Ex 3,4;practice #17-20,22,26  **HW:** #21-31 odd | MA3A6c |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 12  Benchmark  #2  (Friday) | Monday, 3/24 | Law of Cosines | 5.6 - Prove the Law of Cosines and use the computational applications to solve a variety of problems | Warm up: Quick review #7-10  **Class:** Review HW; applications of the Law of Cosines Ex 5,6; practice #32-40 even  **HW:** #33-41 odd | MA3A6c  MA3A7 |
| Tuesday, 3/25 | Law of Cosines | 5.6 - Prove the Law of Cosines and use the computational applications to solve a variety of problems | Warm up: p451 #61  **Class:** Review HW; continue to apply the Law of Cosines to real world problems, practice p452 #62-68 even  **HW:** p452 #63-67 odd | MA3A6c  MA3A7 |
| Wednesday, 3/26 |  | Review for test | Warm up: p451 #62 Surveying a Canyon  **Class:** Review HW; Unit 5.4-6, p451-452 practice #51-60 | MA3A5  MA3A6c  MA3A7 |
| Thursday, 3/27 |  |  | **TEST #4** | MA3A5  MA3A6c  MA3A7 |
| Friday, 3/28  ELECTIVES |  | Review for benchmark | Warm up:  **Class:** Review HW; Review Unit 4.1-5,7,8; 5.1-6; Worksheet  **HW:** study for benchmark | MA3A2a,b,c,d,e  MA3A3a,b,c,d  MA3A5 |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 13  Benchmark  #2  (Monday –  Thursday) | Monday, 3/31  MATH |  |  | **MATH Benchmark #2** | MA3A2a,b,c,d,e  MA3A3a,b,c,d |
| Tuesday, 4/1  SCIENCE | Vectors in the plane | 6.1 – Apply the arithmetic of vectors and use vectors to solve real world problems | Warm up: Quick review #1-4  **Class:** Review HW; Define vector,Discuss head minus tail rule; Exploration 1 p457 Vector Archery; Ex1, Magnitude Ex2, Vector Operations Ex 3; practice #2-20 even  **HW:** #1-19 odd | MA3A10a,b,c |
| Wednesday, 4/2  SOCIAL STUDIES | Vectors in the plane | 6.1 – Apply the arithmetic of vectors and use vectors to solve real world problems | Warm up: Quick review #5-6  **Class:** Review HW; Unit vectors Ex4, Direction angles – resolving the vector Ex5,6; practice #22-38 even  **HW:** #21-37 odd | MA3A10a,b,c |
| Thursday, 4/3  ENGLISH | Vectors in the plane | 6.1 – Apply the arithmetic of vectors and use vectors to solve real world problems | Warm up: Group activity #53 p465  **Class:** Review HW; applications of vectors ex7,8,9; practice #40-52 even  **HW:** #39-51 odd | MA3A10a,b,c,d |
| Friday, 4/4  **Buford’s**  **Got Talent** | Dot-product of vectors | 6.2 – Calculate dot product and projections of vectors | Warm up: Quick review #1-4  **Class:** Review HW; define Dot Product and discuss properties of the dot product; Ex1,2; Discuss the Angle between two vectors theorem, ex3; practice #2-22 even  **HW:** #1-21 odd | MA3A10a,b,c,d |
| **SPRING BREAK!** | | | | | |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 14 | Monday, 4/14 | Dot-product of vectors | 6.2 – Calculate dot product and projections of vectors | Warm up: Quick review #5-8  **Class:** Review HW; Discuss orthogonal vectors, ex4; Projection of u onto v, ex5,6, practice #24-32 even  **HW:** #23-31 odd | MA3A10a,b,c,d |
| Tuesday, 4/15 | Dot-product of vectors | 6.2 – Calculate dot product and projections of vectors | Warm up: Quick review #9-10  **Class:** Review HW; applications of dot product, work ex7; practice #46-56 even  **HW:** #45-55 odd | MA3A10a,b,c,d |
| Wednesday, 4/16 | Parametric equations | 6.3 – Define parametric equations, graph curves parametrically, solve equations | Warm up: Quick review #1-2  **Class:** Review HW; discuss parameters and parametric equations; ex1; discuss eliminating the parameter ex2; exploration 1 p476 Graphing the curve of Example 2 parametrically, practice #2-16 even  **HW:** #1-15 odd | MA3A12a,b |
| Thursday, 4/17 | Parametric equations | 6.3 – Define parametric equations, graph curves parametrically, solve equations | Warm up: Quick review #3-4  **Class:** Review HW; continue with eliminating the parameter ex3,4; practice #18-26 even  **HW:** #17-25 odd | MA3A12a,b |
| Friday, 4/18 | Parametric equations | 6.3 – Define parametric equations, graph curves parametrically, solve equations | Warm up: Quick review #5-6  **Class:** Review HW; finding parametric equations for lines and line segments, ex 5,6, practice #28-36 even  **HW:** #27-35 odd | MA3A12a,b |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 15 | Monday, 4/21 | Parametric equations | 6.3 – Define parametric equations, graph curves parametrically, solve equations | Warm up: Quick review #7-8  **Class:** Review HW; applications of parametric equations ex 8,9,10; practice #38-40 even  **HW:** #37-41 odd | MA3A12a,b |
| Tuesday, 4/22 | Parametric equations | 6.3 – Define parametric equations, graph curves parametrically, solve equations | Warm up: Quick review #9-10  **Class:** Review HW; applications of parametric equations; practice #42 Writing to learn; 44-50 even  **HW:** #43-51 odd | MA3A12a,b |
| Wednesday, 4/23  Performance Essay  SCIENCE &  HEALTH/PE | Parametric equations | 6.3 – Define parametric equations, graph curves parametrically, solve equations | Warm up: Quick review #  **Class:** Review HW; continue applications practice #67  **HW:** review worksheet | MA3A12a,b |
| Thursday, 4/24 |  | Review for test | Warm up: Quick review #  **Class:** Review HW; review unit 6.1-3; p514-515 #2-32 even  **HW:** study for test | MA3A10a,b,c,d  MA3A12a,b |
| Friday, 4/25 |  |  | **TEST #5** | MA3A10a,b,c,d  MA3A12a,b |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 16 | Monday, 4/28 | Polar coordinates | 6.4 – Convert points and equations from polar to rectangular coordinates and vice versa. | Warm up: Quick review #1-6  **Class:** Discuss Cartesian plane and the polar coordinate system; ex1,2; Discuss converting Cartesian coordinates to polar coordinates and vice versa; Ex 3,4; practice #2-22 even  **HW:** #1-21 odd | MA3A6b |
| Tuesday, 4/29 | Polar coordinates | 6.4 – Convert points and equations from polar to rectangular coordinates and vice versa. | Warm up: Quick review #7-8  **Class:** Review HW; Converting equations; ex5,6; practice #24-50 even  **HW:** #23-49 odd | MA3A6b |
| Wednesday, 4/30 | Polar coordinates | 6.4 – Convert points and equations from polar to rectangular coordinates and vice versa. | Warm up: Quick review #9-10  **Class:** Review HW; finding distance using polar coordinates ex7; practice #52-54 even  **HW:** #51,53 | MA3A6b |
| Thursday, 5/1 | Graphs of polar curves | 6.5 – Graph polar equations and determine the max/min r-value and the symmetry of the graph | Warm up: Quick review #1-4  **Class:** Review HW; discuss symmetry in example graphs; List Symmetry Tests for Polar Graphs; Ex1; analyze graphs – min/max ex2,3; practice #2-12 even  **HW:** #1-11 odd | MA3A6b  MA3A13a,b |
| Friday, 5/2 | Graphs of polar curves | 6.5 – Graph polar equations and determine the max/min r-value and the symmetry of the graph | Warm up: Quick review #5-6  **Class:** Review HW; Show slides of rose curves; analyze rose curves ex4; show graphs of Limacon curves; ex5,6; practice #14-42 even  **HW:** #13-41 odd | MA3A6b  MA3A13a,b |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 17 | Monday, 5/5 | Graphs of polar curves | 6.5 – Graph polar equations and determine the max/min r-value and the symmetry of the graph | Warm up: Quick review #7-10  **Class:** Review HW; Discuss other polar curves; Spiral of Archimedes, Lemniscate curve ex 7,8; practice #46-56 even  **HW:** #45-55 odd | MA3A6b  MA3A13a,b |
| Tuesday, 5/6 | Graphs of polar curves | 6.5 – Graph polar equations and determine the max/min r-value and the symmetry of the graph | Warm up: draw the graph of the given polar equation  **Class:** Review HW; continue practice with Polar Curves #57 group activity; #58  **HW:** #61-66 | MA3A6b  MA3A13a,b |
| Wednesday, 5/7 | De Moivre’s Theorem and nth roots | 6.6 – Represent complex numbers in the complex plane and write them in trigonometric form | Warm up: Quick review #1-4  **Class:** Review HW; discuss the complex plane we used with quadratics; ex1; absolute value of a complex number in trigonometric form; ex2; practice 2-18 even  **HW:** #1-17 odd | MA3A11a,b |
| Thursday, 5/8 | De Moivre’s Theorem and nth roots | 6.6 – Represent complex numbers in the complex plane and write them in trigonometric form | Warm up: Quick review #5-8  **Class:** Review HW; multiplication and division of complex numbers, ex3,4; DeMoivre’s Theorem ex5,6; practice #20-38 even  **HW:** #19-37 odd | MA3A11a,b |
| Friday, 5/9 | De Moivre’s Theorem and nth roots | 6.6 – Represent complex numbers in the complex plane and write them in trigonometric form | Warm up: Quick review #9-10  **Class:** Review HW; Finding the roots of complex numbers, ex7,8,9; practice #40-56 even  **HW:** #39-55 odd | MA3A11a,b |
| AP Exams  Monday, 5/5 – AP Chem (AM), AP Enviro Science (AM), and AP Psych(PM)  Wednesday, 5/7 – AP Calculus (AM)  Thursday, 5/8 – AP English Literature (AM)  Friday, 5/9 – AP English Language (AM), AP Art (AM), and AP Statistics (PM) | | | | Career Pathways Testing  Tuesday, 5/6  Make-Up Exams As Needed | |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 18 | Monday, 5/12 |  | Review for test | Warm up: p515 #36  **Class:** Review HW; review Unit 6.4,5,6: p515-516 #38,41,44,46,49,53-60,68,71,75,76,80  **HW:** study for test | MA3A6b  MA3A11a,b  MA3A13a,b |
| Tuesday, 5/13 |  |  | **TEST #6** | MA3A6b  MA3A11a,b  MA3A13a,b |
| Wednesday, 5/14 |  | Review for final exam | Warm up: Find all six trig functions in the given triangle  **Class:** Review HW; Unit 4.1-5,7,8 Review Exercises p399-401  **HW:** finish classwork | MA3A2a,b,c,d,e  MA3A3a,b,c,d  MA3A6a  MA3A8a,b |
| Thursday, 5/15 |  | Review for final exam | Warm up: Solve the given identity  **Class:** Review HW; Unit 5.1-6 Review Exercises p450-453  **HW:** finish classwork | MA3A5  MA3A6c  MA3A7 |
| Friday, 5/16 |  | Review for final exam | Warm up: Graph the given polar equation  **Class:** Review HW; Unit 6.1-6 Review Exercises p514-517  **HW:** finish classwork | MA3A10a,b,c,d  MA3A12a,b  MA3A6b  MA3A11a,b  MA3A13a,b |
| AP Exams  Monday, May 12 – AP Biology (AM) and AP Music Theory (AM)  Tuesday, May 13 – AP Government (AM) and AP Human Geography (PM)  Wednesday, May 15 – AP US History (AM)  Thursday, May 16 – AP Macroeconomics (AM) and AP World History (AM) | | | | EOCTs  Thursday, 5/15 – Economics  Friday, 5/16 – 9th Lit & Comp, American Lit & Comp, & Analytic Geometry  (Other EOCTs will be given during Semester Exam periods.) | |

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| **WEEK** | **DAY** | **CONCEPT** | **OBJECTIVES** | **INSTRUCTIONAL STRATEGIES** | **STANDARDS**  **(CCGPS, GPS, AP)** |
| Week 19  Benchmark  #3 | Monday, 5/19 | **Senior Exams (Benchmark #3 – 4th, 5th, 6th, & 7th)** | | | |
| Tuesday, 5/20 | **Senior Exams (Benchmark #3 – 1st, 2nd, & 3rd) / Semester Exams (Benchmark #3 – 7th)** | | | |
| Wednesday, 5/21 | **Semester Exams (Benchmark #3 – 1st & 2nd)** | | | |
| Thursday, 5/22 | **Semester Exams (Benchmark #3 – 3rd & 4th)** | | | |
| Friday, 523 | **Semester Exams (Benchmark #3 – 5th & 6th)** | | | |