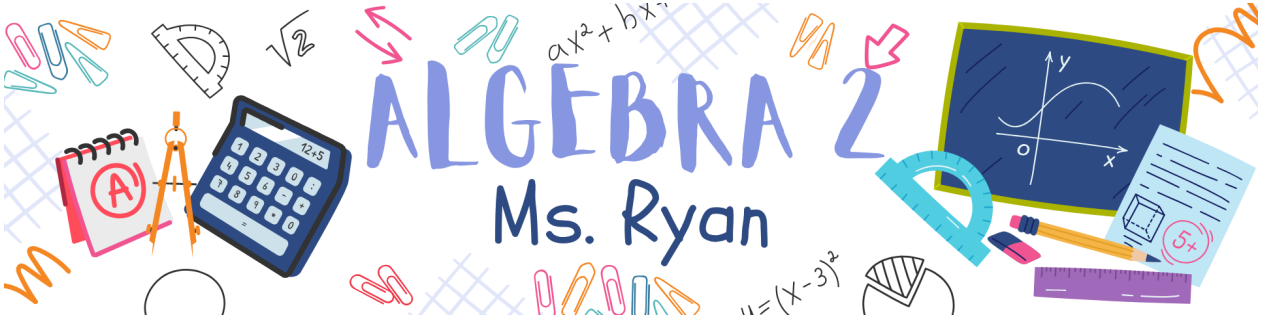

Syllabus

Week 1: August 4th - 8th

Welcome Back!

Monday **Virtual**	**Tuesday** **Virtual**	**Wednesday** **Virtual**	**Thursday** **Virtual**	**Friday** **Virtual**
Get to know the teacher / Student Vision Board HW: Vision Board (Google Classroom)	Present Vision Boards Syllabus / School Expectations HW: None	Warm-up IXL Diagnostic HW: None	Warm-up Login to Savvas • Email Sent HW: Topic 1 Readiness Assessment	Email me with any questions/concerns! 8am - 12pm mryan@grayca.com
Essential Question:				

**Subject to Change*

Week 2: August 11th - 15th

Unit: Functions

Monday **Virtual**	**Tuesday** **Virtual**	**Wednesday** **Virtual**	**Thursday** **Virtual**	**Friday** **Virtual**
Lesson 1.1: Domain, Range, and End Behavior Homework: 1.1 (homework grade accuracy) ★ Check answer twice per question	Warm-up Lesson: 1.2: Characteristics of Function Graphs Homework: 1.2 (homework grade accuracy) ★ Check answer twice per question	Warm-up Lesson 1.3: Transformations of Function Graphs Homework: 1.3	Warm-up Lesson: Average Rate of Change Over an Interval HW: ROC Interval	**No Google Meet** ★ Have a great weekend! Email me with any questions/concerns! 8am - 12pm mryan@grayca.com
☑ How can you determine the domain, range, and end behavior of a function?	☑ What are some of the attributes of a function, and how are they related to the function's graph?	☑ What are the ways you can transform the graph of the function $f(x)$?	☐ What are some of the attributes of a function, and how are they related to the function's graph?	
★ Domain consists of x values, range consists of y values, and end behavior describes what happens as x values increase or decrease.	★ Domain/range, increasing or decreasing, positive or negative intervals indicating if the graph is above or below the x-axis.	★ $a(x-h)^2+k$, negative a reflects the graph, a > 1 stretches, 0 < a < 1 compression, "opposite h" moves left or right, k shifts the graph up or down.	★ Rate of change, slope of the function's graph. Can be found for specific intervals. ★ $\frac{f(a)-f(b)}{a-b}$	

**Subject to Change*

Week 3: August 18th - 22nd

Unit: Functions

Monday Virtual	Tuesday	Wednesday	Thursday	Friday
Lesson 1.4: Inverses of Functions HW: IXL: Inverse from Tables 80% = 100% in grade book HW IXL: Find the Inverse 80% = 100% in grade book	Warm-up **Quiz** • 1.1 - 1.4 & Mini Lesson • After quiz, update diagnostic score HW: None	Warm-up Real World Ex. in GC Lesson 2.1: Solve Absolute Value Equations HW 2.1: IXL: Solve Absolute Value EQ.	Warm-up Lesson 2.2: Solve Absolute Value Inequalities HW: 2.2 IXL Solve Absolute Value Inequalities	- Tutoring: 8am-11am - Optional: 1 **Test** Retake per Quarter - No retake for Quiz mryan@grayca.com
☐ What is an inverse function? How do you know it's an inverse function?		☐ How can you solve absolute value equations?	☐ What are two ways to solve an absolute value inequality?	
★ Given a function, the inverse, reverses the pairing of the domain and range.		★ Isolate Absolute Value, set up a second case and solve.	★ Isolate Absolute Value, set up a second case, solve, and graph.	

**Subject to Change*

Week 4: August 25th - 29th

Unit: Functions

Monday	Tuesday	Wednesday	Thursday	Friday
Warm-up Quiz • Lessons 2-1 & 2-2 • After quiz, update diagnostic score HW: None	Warm-up Lesson 2.3: Graph Absolute Value Functions HW:2-3 Graph Absolute Value Functions • Paper Handout	Warm-up Mini Lesson - IXL • **Not** Homework (extra credit question on test) Unit 1 Study Guide: Functions HW: Finish Study Guide	Warm-up **Unit 1 Test: Functions** HW: None	- Tutoring: 8am-11am - Optional: 1 **Test** Retake per Quarter - No retake for Quiz mryan@grayca.com
Essential Question:				
	☐ How can you use transformations to graph Absolute Value Functions?			

**Subject to Change*

Week 5: September 1st-5th

Unit: Factoring Polynomials

Monday	Tuesday	Wednesday	Thursday	Friday
No School - Labor Day	Warm-up Lesson 3.0: Review Factoring (GCF & Grouping) HW: 3.0	Warm-up Lesson 3.1: Factor a Trinomial $a = 1$ HW: 3.1	Warm-up Mini Quiz (3 Questions) Lesson 3.1 Pt. 2: Factor a Trinomial $a > 1$ HW: 3.1 Part 2	- Tutoring: 8am-11am - Optional: 1 **Test** Retake per Quarter - No retake for Quiz mryan@grayca.com
Essential Question:				
	☐ How is factored form helpful when solving Quadratic Equations?	☐ How is factored form helpful when solving Quadratic Equations?	☐ How is factored form helpful when solving Quadratic Equations?	

**Subject to Change*

Week 6: September 8th-12th

Unit: Factoring Polynomials

Monday	Tuesday	Wednesday	Thursday	Friday
Warm-up Lesson 3.2: Factor Difference of Squares HW: 3.2	Warm-up Lesson 3.3: Factor a Sum or Difference of Cubes HW: 3.3	Warm-up (skip Q3) Review Study Guide HW: Finish Study Guide	Warm-up **Unit 2 Test: Factor Polynomials** • Factor Flowchart • SOFAS / List of Perfect Cubes • Note Card HW: None	- Tutoring: 8am-10:30am - Optional: 1 **Test** Retake per Quarter - No retake for Quiz mryan@grayca.com
Essential Question:				
☐ What are some ways to factor a polynomial, and how is factoring useful?	☐ What are some ways to factor a polynomial, and how is factoring useful?	☐ What are some ways to factor a polynomial, and how is factoring useful?	☐ What are some ways to factor a polynomial, and how is factoring useful?	

**Subject to Change*

Week 7: September 15th-19th

Unit: Quadratic Functions

Monday	Tuesday	Wednesday	Thursday	Friday
Warm-up Lesson 4.0: Properties Quadratic Functions HW: 4-0	Warm-up • Handout Introduction to Project Lesson: 4-1 Given 2 Points, Write EQ in Vertex Form HW: IXL 4-1	Warm-up Lesson: 4-2 Solve Quadratics by Factoring HW: 4-2	Warm-up Mini Lesson: Convert from Vertex form to Standard Form **Quiz** • 4-0 to 4-2 HW: None	- Tutoring: 8am-10:30am - Optional: 1 **Test** Retake per Quarter - No retake for Quiz mryan@grayca.com
Essential Question:				
☐ How do you use quadratic functions to model situations and solve problems?	☐ What key features can you determine about a quadratic function from an equation in standard form and vertex form?	☐ How is factored form helpful with solving quadratic functions?		

**Subject to Change*

Week 8: September 22ndrd-26th

Unit: Quadratics

Monday	Tuesday	Wednesday	Thursday	Friday
Warm-up Lesson 4-3: Simplifying Non-perfect Squares HW: 4-3	Warm-up Lesson 4-4: Solve by Completing the Square HW: 4-4	Warm-up Lesson 4-5: Complex Numbers & Roots HW: 4-5	Warm-up Warm-up Word Problems Quiz HW: None 🙂	- Tutoring: 8am-10:30am - Optional: 1 **Test** Retake per Quarter - No retake for Quiz mryan@grayca.com
Essential Question:				
☐ How can you simplify a non-perfect square root?	☐ How can you use completing the square to solve quadratic equations?	☐ What is an imaginary number, and how is it useful in solving quadratic equations?		

**Subject to Change*

Week 9: September 29th-Oct. 3rd

Instructional Unit: Quadratic Functions

Monday	Tuesday	Wednesday	Thursday	Friday Parent-Teacher Conferences
Warm-up: Handout Lesson 4-6: Solve Quadratics with the Quadratic Formula HW: 4-6	Warm-up Lesson 4-7: Word Problems HW: 4-7 (Handout)	Warm-up: Handout HW: Study Guide	Warm-up: Handout Test (paper) HW: None	No Tutoring Available
Essential Question:				
☐ How can you find the complex solutions of any quadratic equation?	☐ How do you use quadratic functions to model situations and solve problems?	☐ How do you use quadratic functions to model situations and solve problems?	☐ How do you use quadratic functions to model situations and solve problems?	

**Subject to Change*

Week 10: October 6th-9th Quarter 2

Instructional Unit: Polynomial Functions

Monday **Q1 Ends**	**Tuesday**	**Wednesday**	**Thursday** **Grades Due**	**Friday**
Check Powerschool Grades ✔ Lesson 5.1: Polynomials HW: 5.1	Warm-up Lesson 5.2: Multiply Polynomials (Pascal's Triangle) HW: 5.2	Warm-up 5.3: Divide Polynomials (Long Division) HW: 5.3	Warm-up Quiz HW: None 😊	No School - Fall Break
Essential Question:				
☐ How do you add or subtract two polynomials, and what type of expression is the result?	☐ How do you multiply polynomials, and what type of expression is the result? How is the Binomial Theorem useful?	☐ What are some ways to divide polynomials, and how do you know when the divisor is a factor of the dividend?		

**Subject to Change*

Week 11: October 13th-17th

Instructional Unit: Polynomial Functions

Monday	Tuesday	Wednesday	Thursday Pep Rally	Friday
No School - Fall Break	Warm-up Lesson 5.4: Divide Polynomials (Synthetic Division) HW: 5.4	Warm-up Lesson 5.5: Graphing Polynomials HW: 5-5 Handout	Warm-up Quiz HW: None 😊	- Tutoring: 8am-10:30am - Optional: 1 **Test** Retake per Quarter - No retake for Quiz mryan@grayca.com
Essential Question: What can an equation for a polynomial function tell about its graph, and what can a graph of a polynomial function tell about the solutions of a polynomial equation?				
	☐ What are some ways to divide polynomials, and how do you know when the divisor is a factor of the dividend?	☐ How do you find the rational roots of a polynomial equation?	**Pep Rally:** High school students will be taken by bus to the pep rally at West Columbia. They will leave Irmo at 10:00 (Return ETA 11:45 -12:00). **You must be WEARING your bracelet in order to board the bus.**	

**Subject to Change*

Week 12: October 20th - 24th

Instructional Unit: Polynomial Functions

Monday **Ms. Ryan Out**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
Warm-up Review • Watch the video, take notes (handout in packet) HW: None	Warm-up • Handout Lesson 5.6: Finding Roots HW: 5.6	Warm-up • Handout Study Guide HW: Study! • Fill out notecards	Warm-up • Handout Test: Unit 5 Polynomials HW: None 😊	- Tutoring: 8am-10:30am - Optional: 1 **Test** Retake per Quarter - No retake for Quiz mryan@grayca.com
Essential Question: What can an equation for a polynomial function tell about its graph, and what can a graph of a polynomial function tell about the solutions of a polynomial equation?				
	☐ What does the Rational Root Theorem tell you about the roots of a polynomial equation?			

**Subject to Change*

Week 13: October 27th - 31st

Instructional Unit: Radical Functions

Monday	Tuesday	Wednesday Mrs. Martin's Rm. 203	Thursday	Friday
Warm-up Lesson 6.1: Simplifying, Multiplying, and Dividing Radical Expressions HW: 6.1	Warm-up Lesson 6.2: Adding & Subtracting Radical Expressions HW: 6.2	Warm-up **Quiz** • 6.1 - 6.2 HW: None 🙂	No Warm-up Lesson 6.3: Radical Expressions and Radical Exponents HW: 6.3	- Tutoring: 8am-10:30am - Optional: 1 **Test** Retake per Quarter - No retake for Quiz mryan@grayca.com
Topic: Essential Question: How are rational exponents and radical equations used to solve real-world problems?				
☐ How can you multiply and divide rational expressions?	☐ How can you add and subtract rational expressions?		☐ How are rational exponents related to radicals and roots?	

**Subject to Change*

Week 14: November 3rd-7th

Instructional Unit: Radical Functions

Monday	Tuesday	Wednesday	Thursday	Friday
Warm-up Lesson 6.4: Graphing Square Root Functions HW: 6.4 Delta Math • Class Link	Warm-up Lesson 6.5: Solving Radical Equations HW: 6.5	Warm-up Study Guide HW: Study! • Fill out notecards.	Warm-up **Unit 6 Test: Radical Functions** HW: None 🙂	- Tutoring: 8am-10:30am - Optional: 1 **Test** Retake per Quarter - No retake for Quiz mryan@grayca.com
Topic: Essential Question: How are rational exponents and radical equations used to solve real-world problems?				
☐ How can you use what you know about transformations to graph radical functions?	☐ How can you solve equations involving square roots and cube roots?			

**Subject to Change*

Week 15: November 10th-14th

Instructional Unit: Rational Functions

Monday	Tuesday Picture Day	Wednesday	Thursday	Friday
Warm-up Lesson 7.1: Simplify, Multiply, and Divide Rational Expressions ☑ Test Corrections HW: 7.1	Warm-up Lesson 7.2: Adding & Subtracting Rational Expressions (Like Denominators) HW: 7.2	Warm-up Lesson 7.3: Adding & Subtracting Rational Expressions (Unlike Denominators) HW: 7.3	Review • Extra Practice - AK **Quiz** • Open note HW: None 🙂	- Tutoring: 8am-10:30am - Optional: 1 **Test** Retake per Quarter - No retake for Quiz mryan@grayca.com
Essential Question: What are rational functions and what are the key features of their graphs?				
☐ How does multiplying & dividing fractions help you multiply and divide rational expressions?	☐ How do you rewrite rational expressions to find sums and differences?	☐ How do you rewrite rational expressions to find sums and differences?		

**Subject to Change*

Week 16: November 17th-21st

Instructional Unit: Rational Functions

Monday	Tuesday	Wednesday	Thursday	Friday
Lesson 7.4: & Lesson 7.5: Solving Rational Equations HW: 7.4 & 7.5	Warm-up Lesson 7.6: Graphing Rational Functions HW: 7.6	Warm-up Study Guide HW: Study! • Fill out notecards.	Warm-up **Unit 7 Test: Rational Functions** HW: None 🙂	No Tutoring Weather Makeup Day mryan@grayca.com
Essential Question: What are rational functions and what are the key features of their graphs?				
☐ How can you solve rational equations and identify extraneous solutions?	☐ How can you graph a rational function?			

**Subject to Change*

Week 17: November 24th-28thThanksgiving Break

Monday	Tuesday	Wednesday	Thursday	Friday
THANKSGIVING BREAK				
Essential Question:				

**Subject to Change*

Week 18: December 2nd-6th

Instructional Unit:

Monday	Tuesday	Wednesday	Thursday	Friday
Warm-up • Handout Lesson 8.1: Review Distance & Midpoint Formula HW: 8.1	Warm-up • Handout Lesson 8.2: Equations of Circles HW: 8.2	Warm-up • Handout Quiz: Circles • 8.1 - 8.2		
Essential Question:				
☐	☐	☐	☐	

**Subject to Change*

Week 19: December 9th-13th

Instructional Unit:

Monday	Tuesday	Wednesday	Thursday	Friday
			HW: Review for Final Exam #1	
Essential Question:				
☐	☐	☐	☐	

**Subject to Change*

Week 20: December 16th-20th

Instructional Unit:

Monday	Tuesday	Wednesday	Thursday	Friday
Warm-up • Notebook Paper HW: Review for Final Exam #2	**Final Exam** HW: None 🙂			

**Subject to Change*

Week 21/22: December 23rd-Jan. 3rd Winter Break

Monday	Tuesday	Wednesday	Thursday	Friday
WINTER BREAK				

**Subject to Change*