

Algebra 2/Trigonometry Honors

Fall 2025

Mr. Welsch

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[Aug 25](#)

[Sept 1](#)

[Sept 8](#)

[Sept 15](#)

[Sept 22](#)

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[Oct 6](#)

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[Nov 3](#)

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[Dec 1](#)

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Algebra 2/Trigonometry Honors is an accelerated math course for highly motivated students interested in mathematics. Topics include the following: linear and quadratic functions; systems of equations and inequalities; polynomials; exponential and logarithmic functions; trigonometric ratios, graphs, and solving equations.

It will be very helpful if you have a basic scientific calculator with you every day. Almost every assignment can be completed without one, but to use your time efficiently, it is recommended that you bring one with you. You need to purchase your own calculator. We recommend purchasing a Casio FX-300ES Plus Scientific Calculator.

Grading: Formative (Quizzes/Projects) 30%, Summative (Tests, Semester Test) 70%

[Class Syllabus](#)

[QUIZ/TEST RETAKE FORM](#)

[Correction and Reflection Sheet](#)

Mr. Welsch's 2025-2026 Schedule	
Period 2	SH/PLAN
Period 3	Pre-Calc H
Period 4	Algebra 2/Trig. H
Period 5	PLAN
Period 6	Geometry
Period 7	Geometry
Period 8-9	T3, Room 210
Period 10	Pre-Calc H
Period 11	Algebra 2/Trig. H

Other teachers who can help with this class:
Mrs. Rickert - Room #212
Mr. Ortegren - Room #216

Date	Power Essential	Learning Target	In-Class Activities	Assignments	Activities for Success
Thursday August 14		ID Ready! Phone Caddy Ready! Calculator Ready!	Get to Know Activity PBIS → Classroom Expectations Note Card Information: -Name -Future Career/College -Goal Grade Number Competition	Pre-Skills Check	Purchase a Casio FX-300ES Plus 2nd Edition Scientific Calculator, if desired. 
Friday August 15					
Monday August 18	Algebra 1 Review	I can solve multi-step equations with fractions and decimals. I can rewrite an equation in function form. I can solve a system of equations	Solving for y Mad Lib Activity Pre-Skills Check #1-9 Answers Card Match Up - Solving Equations Number Competition Class Syllabus Pre-Skills Check Page 2 #10-16	Systems: What did one boat say to the other?	Purchase a Casio FX-300ES Plus 2nd Edition Scientific Calculator, if desired. 
Tuesday August 19					
Wednesday August 20	Algebra 1 Review	I can graph linear functions. I can solve a system of equations	-Bell Ringer: ACT Geometry Set #1 - Pre-Skills Check Page 2 #10-16 Graphing with slope-intercept & standard Form: Blank Notes , Filled Out Notes Number Competition Systems Boat Riddle Check	Linear Graphing Assignment Linear Graphing ANSWERS PICK FLEX T3 (Week Aug 25-Aug 29)	Function Form & Systems Quiz - Fri/Mon 1) Solve for x 2) Solve for y 3) Solve a System 4) Boat Riddle is 1 pt
Thursday August 21					

Date	Power Essential	Learning Target	In-Class Activities	Assignments	Activities for Success
Friday August 22	Power Essential: I can graph, evaluate, and state the domain and range for functions.	Learning Targets: I can rewrite an equation in slope-intercept form. I can rewrite an equation so that y is a function of x.	Bell Ringer: Function Form & Systems QUIZ: Function Form & Systems	Pre-Skills Check Page 3 #17-20 1.1 HW Assignment 1.1 HW ANSWERS	PICK FLEX/T3 (Week Aug 25-Aug 29)
Monday August 25			1.1: Rewriting Eqns. in Function Form BLANK Notes , Filled Out Notes 1.1 Textbook Pages		
Tuesday August 26	Power Essential: I can graph, evaluate, and state the domain and range for functions.	Learning Targets: I can write equations of lines using a set of given information.	1.1 Bell Ringer KEY 1.1 QUIZ: Rewrite in Function Form	1.2-1.3 HW Assignment 1.2 - 1.3 HW Answers	PICK FLEX/T3 (Week Aug 25-Aug 29)
Wednesday August 27			1.2-1.3 Lesson: Equations of Lines Blank Notes , Filled Out Notes 1.2 Textbook 1.3 Textbook		
Thursday August 28	Power Essential: I can graph, evaluate, and state the domain and range for functions.	I can factor polynomials with 3 terms.	1.2-1.3 Bell Ringer 1.2-1.3 QUIZ -HW odds Turned in	MATHO Geometry Review	PICK FLEX/T3 (Week Sep 2- Sep 5)
Friday August 29			Factoring with 3 terms Blank Notes , Filled Out Notes		
Monday September 1	No School - Labor Day				
Tuesday September 2	Power Essential: I can graph, evaluate, and state the domain and range for functions.	Learning Target: I can identify functions and use a mapping diagram to represent a function. I can determine if a mapping diagram is a function and explain why or why not. I can determine if a function is linear and explain why or why not.	Bell Ringer: ACT Geometry Set #2 Computer Pre-ACT Testing Review Number Game Competition	1.4 HW Assignment 1.4 Answers	
Wednesday September 3			1.4 Functions and Their Graphs 1.4 Textbook Notes 1.4 Blank Notes 1.4 In Class Notes		
Thursday September 4	Power Essential: I can graph, evaluate, and state the domain and range for functions.	Learning Target: I can find the composition of two functions. I can find the inverse of a linear function. I can graph the inverse of a function.	1.4 Bell Ringer 1.4 QUIZ -HW odds turned in	1.5 HW Assignment 1.5 ANSWERS	
Friday September 5			1.5: Composition & Inverses 1.5 Textbook Pages Blank Notes , Filled Out Notes		

Date	Power Essential	Learning Target	In-Class Activities	Assignments	Activities for Success
Monday September 8	Power Essential: I can graph, evaluate, and state the domain and range for functions.	Learning Targets: E5, E6: I can graph an absolute value function and state its domain and range.	1.5 Bell Ringer 1.5 QUIZ -HW odds turned in	1.6 HW Assignment 1.6 ANSWERS	
Tuesday September 9			1.6: Absolute Value Functions 1.6 Textbook Pages 1.6 Blank Notes 1.6 In Class Notes - Filled Out 1.6 Video - Brian McLogan		
Wednesday September 10	Power Essential: I can graph, evaluate, and state the domain and range for functions.	Learning Target: I can graph a piecewise function.	1.6 Bell Ringer 1.6 QUIZ -HW odds turned in	1.7 HW Assignment 1.7 ANSWERS	
Thursday September 11			1.7: Graphing Piecewise Functions 1.7 Textbook Pages 1.7 Blank Notes 1.7 In Class, Filled Out Notes MATHO Review 1.1 - 1.6		
Friday September 12	Power Essential: I can graph, evaluate, and state the domain and range for functions.	Learning Target: I can write a piecewise function from a given graph. I can write a piecewise function from a given scenario.	1.7 Bell Ringer KEY 1.7 QUIZ -HW odds turned in	1.8 HW Assignment 1.8 HW ANSWERS	
Monday September 15			1.8: Writing Piecewise Functions 1.8 Textbook Pages 1.8 Blank Notes 1.8 In Class, Filled Out Notes 1.8 Video Lesson: Writing Piecewise Fns		
Tuesday September 16	Power Essential: I can graph, evaluate, and state the domain and range for functions.		1.8 Bell Ringer 1.8 QUIZ -HW odds turned in	Review Chapter 1 HW Review Chapter 1 Answers	
Wednesday September 17			Review Chapter 1 TEST FRI/MON		
Thursday September 18	Power Essential: I can graph, evaluate, and state the domain and range for functions.		Review Questions, Chapter 1 TEST: CHAPTER 1	Puzzles - Shikaku - Tangram - KenKen - Sudoku	Billards Game (Beat Computer) Connect the Colors Game Level 4
Friday September 19					

Date	Power Essential	Learning Target	In-Class Activities	Assignments	Activities for Success
Monday September 22	Power Essential: I can solve a system of equations and graph linear inequalities.	Learning Target: I can solve a system of equations using one of the following methods: graphing, substitution, elimination.	NEW SEATS!	3.1-3.2 HW Assignment 3.1-3.2 HW ANSWERS	
Tuesday September 23			ACT Practice #1-16 Answers 3.1-3.2 Notes: Solving Systems of Equations Graphically & Algebraically 3.1 Textbook - Solve by Graphing 3.2 Textbook - Solve Algebraically 3.1-3.2 Blank Notes 3.1-3.2 In Class, filled out Notes Video- Solve a System using the Graphing Method Video - Solve a System using Substitution Video- Solve a System using Elimination		
Wednesday September 24	Power Essential: I can solve a system of equations and graph linear inequalities to solve real world problems.	N1: I can find the minimum and maximum values given an objective function and a list of constraints.	3.1-3.2 Stations Bell Ringer	3.3 HW Assignment 3.3 Answers	
Thursday September 25			3.1-3.2 HW Questions/Turn In Odds 3.1-3.2 QUIZ 3.3: Systems of Linear Inequalities 3.3 Textbook Pages 3.3 Blank Notes 3.3 In Class Notes 3.3 Video Lesson Link		
Friday September 26	No School - Professional Development Day				
Monday September 29	Power Essential: I can solve a system of equations and graph linear inequalities to solve real world problems.	N1: I can write an objective function and a list of constraints for a given scenario. I can find the minimum and maximum values given an objective function and a list of constraints.	3.3 Bell Ringer KEY 3.3 HW Questions 3.3 QUIZ 3.4:Basic Linear Programming 3.4 Textbook Pages 3.4 In Class Notes 3.4 Video Lesson Link - Example 1A 3.4 Video Lesson Link - Example 1B	3.4 HW Assignment & Answers	
Tuesday September 30					
Wednesday October 1	Power Essential: I can solve a system of equations and graph linear inequalities to solve real world problems.	Learning Targets: N1: I can write an objective function and a list of constraints for a given scenario. I can find the minimum	3.4 Bell Ringer ANSWER KEY 3.4 QUIZ: Basic Linear Programming	DESMOS Online Graph Paper Enter Equations to Check Work	
Thursday October 2			3.5: Linear Programming Applications 3.5 Textbook Pages		

Date	Power Essential	Learning Target	In-Class Activities	Assignments	Activities for Success
		and maximum values given an objective function and a list of constraints.	3.5 Blank Notes 3.5 In Class, Filled Out Notes 3.5 Video Lesson	3.5 HW Assignment 3.5 HW Answers	
Friday October 3	Power Essential: I can solve a system of equations and graph linear inequalities to solve real world problems.	E3: I can solve systems of equations with three variables.	3.5 Bell Ringer (Make up Quiz 3.1-3.2, 3.3 or 3.4) 3.5 Homework Review (#1) Picture Answers #2 and #3 3.6: Systems of Equations with Three Variables 3.6 Textbook Pages 3.6 Blank Notes 3.6 In Class Notes 3.6 Video - Example 1 3.6 Video - Example 2 3.6 Video - Example 3	3.6 HW Assignment 3.6 Answers	
Monday October 6					
Tuesday October 7	Power Essential: I can solve a system of equations and graph linear inequalities to solve real world problems.	E3: I can solve systems of equations with three variables.	3.6 Bell Ringer KEY (Quizzes) 3.1-3.2, 3.3, or 3.4 3.7: 3 Variable Problem Solving 3.7 Textbook Pages 3.7 Blank Notes ANSWER KEY 3.7 Video Lesson Stations 3.1-3.6 Work Page	3.7 HW Assignment 3.7 HW ANSWERS	
Wednesday October 8					
Thursday October 9	Power Essential: I can solve a system of equations and graph linear inequalities to solve real world problems.	All of Chapter 3 Learning Targets	Questions 3.5-3.7 3.5-3.7 QUIZ Review: Chapter 3	Review Ch 3 HW Assignment Review Ch 3 ANSWERS	
Friday October 10					
Monday October 13 (Period 4)	Power Essential: I can solve a system of equations and graph linear inequalities to solve real world problems.	All of Chapter 3 Learning Targets	TEST: Chapter 3	CirclQ Level 12 BLOCK SHIFT GAME - ONLINE Level 10 SPACE IS KEY Level 9	
Tuesday October 14	Pre-ACT Testing Day				
Wednesday October 15 (Period 11)	Power Essential: I can solve a system of equations and graph linear inequalities to	All of Chapter 3 Learning Targets	TEST: Chapter 3	CirclQ Level 12 BLOCK SHIFT GAME - ONLINE Level 10	SPACE IS KEY Level 9

Date	Power Essential	Learning Target	In-Class Activities	Assignments	Activities for Success
	solve real world problems.				
Thursday October 16	No School - Teacher Work Day				
Friday October 17	No School - PTC Payback Day				
Monday October 20	Power Essential: I can solve and graph quadratics that have real or imaginary solutions.	Learning Target(s): E1: I can graph quadratic functions and identify important information including the vertex, axis of symmetry, x-intercepts, and the domain and range.	Bellringer (ACT Geometry Set #3) 5.1: Graphing Quadratics in standard, vertex, and intercept form 5.1 BLANK Notes 5.1 In Class Notes - Filled Out 5.1 Textbook Notes 5.1 Video Lesson: Graphing Quadratics	5.1 HW Assignment 5.1 HW Answers 5.1 D & R Answers	
Tuesday October 21					
Wednesday October 22	Power Essential: I can solve and graph quadratics that have real or imaginary solutions.	Learning Target(s): E1: I can graph quadratic functions and identify important information including the vertex, axis of symmetry, x-intercepts, and the domain and range.	Bellringer Ch 1 Review KEY <u>QUIZ REVIEWS</u> #1 C4L Graphing in Standard Form w/Key #2 C4L Graphing in Vertex Form w/Key #3 C4L Graphing in Intercept Form KEY	5.1 HW Assignment 5.1 HW Answers 5.1 D & R Answers	
Thursday October 23					
Friday October 24	Power Essential: I can solve and graph quadratics that have real or imaginary solutions.	E2: I can solve quadratic & cubic equations by factoring. N1: I can find a missing dimension for a given figure.	5.1 Bellringer KEY 5.1 QUIZ 5.2: Factoring & Solving Polynomials 5.2 Blank Notes 5.2 In Class Notes 5.2 Textbook Notes 5.2 Video Lessons: Factoring to solve - 2 Terms Factoring to solve - 3 Terms Factoring to solve - 4 Terms Missing Dimension Example Factoring with 2 variables	5.2 HW Assignment 5.2 HW Partially Worked Out 5.2 HW Answers	
Monday October 27					
Tuesday October 28	Power Essential: I can solve and graph quadratics that have real or imaginary solutions.	E2: I can solve quadratic & cubic equations by factoring.	Stations: Quadratic Graphing Review WORK PAGE Finish 5.2 Blank Notes 5.2 In Class Notes	5.2 HW Assignment 5.2 HW Partially Worked Out	
Wednesday					

Date	Power Essential	Learning Target	In-Class Activities	Assignments	Activities for Success
October 29		N1: I can find a missing dimension for a given figure.	Stations #2 Quiz Review	5.2 HW Answers	
Thursday October 30 (Period 4)	Power Essential: I can solve and graph quadratics that have real or imaginary solutions.	E2: I can solve quadratic equations that have real solutions using the square root method	5.2 Bellringer/C4L 5.2 QUIZ Quiz 5.1 Back 5.3: Solving Quadratic Equations by Square Rooting 5.3 BLANK Notes 5.3 In Class Notes-Filled Out 5.3 Textbook Notes 5.3 Video Lesson: Simplifying Square Roots 5.3 Video Lesson: Solve by Square Rooting 5.3 Video Lesson: Projectile Motion	5.3 HW Assignment 5.3 HW Answers	
Friday October 31	No School - Teacher Work Day				
Monday November 3 (Period 11)	Power Essential: I can solve and graph quadratics that have real or imaginary solutions.	E2: I can solve quadratic equations that have real solutions using the square root method	5.2 Bellringer/C4L 5.2 QUIZ 5.3: Solving Quadratic Equations by Square Rooting 5.3 BLANK Notes 5.3 In Class Notes-Filled Out 5.3 Textbook Notes 5.3 Video Lesson: Simplifying Square Roots 5.3 Video Lesson: Solve by Square Rooting 5.3 Video Lesson: Projectile Motion	5.3 HW Assignment 5.3 HW Answers	
Tuesday November 4	Power Essential: I can solve and graph quadratics that have real or imaginary solutions.	E2: I can solve quadratic equations that have real and imaginary solutions.	5.3 Bellringer/C4L KEY 5.3 QUIZ		
Wednesday November 5		I can add, subtract, multiply, and divide with complex numbers.	5.4: Operations with Complex #s 5.4 BLANK Notes 5.4 In Class Notes - Filled Out 5.4 Textbook Notes 5.4 Video Lesson: Definition of a Complex Number 5.4 Video Lesson: Operations with Complex #'s 5.4 Video Lesson: Solving Equations with Complex Solutions	5.4 HW Assignment 5.4 HW Answers	

Date	Power Essential	Learning Target	In-Class Activities	Assignments	Activities for Success
Thursday November 6	Power Essential: I can solve and graph quadratics that have real or imaginary solutions.	Learning Target(s): E2: I can solve quadratic equations that have real and imaginary solutions using the completing the square method.	5.4 Bellringer KEY 5.4 QUIZ 5.5: Solving Quadratics by Completing the Square 5.5 BLANK Notes 5.5 In Class Notes - Filled Out 5.5 Textbook Notes 5.5 Video Lesson: Completing the Square	5.5 HW Assignment 5.5 HW Answers	
Friday November 7					
Monday November 10	Power Essential: I can solve and graph quadratics that have real or imaginary solutions.	E2: I can solve quadratic equations that have real and imaginary solutions using the square root method, completing the square method, factoring, and the quadratic formula. E3: I can solve quadratic inequalities.	5.5 Bellringer 5.5 QUIZ 5.6-5.7: Quadratic Formula 5.6-5.7 Blank Notes 5.6-5.7 In Class, Filled Out Notes 5.6 Textbook Pages 5.7 Textbook Pages 5.7 Video: Quadratic Inequalities	5.6-5.7 HW Assignment 5.6-5.7 HW Answers	
Tuesday November 11					
Wednesday November 12	Power Essential: I can solve and graph quadratics that have real or imaginary solutions.	I can solve and graph quadratics that have real or imaginary solutions.	5.6-5.7 Bellringer KEY 5.6-5.7 QUIZ Review Chapter 5	Review Chapter 5 HW Assignment Review Chapter 5 Answers CH 5 FORMULA SHEET	
Thursday November 13					
Friday November 14	Power Essential: I can solve and graph quadratics that have real or imaginary solutions.	I can solve and graph quadratics that have real or imaginary solutions.	Review Chapter 5 Questions CH 5 FORMULA SHEET Test Chapter 5 Online Games Free Questions	CircLO Level 12 BLOCK SHIFT GAME - ONLINE Level 10 SPACE IS KEY Level 9	
Monday November 17					
Tuesday November 18	I can graph and solve polynomial functions.	I can sketch the graph of a polynomial function and state its end behavior. I can estimate a polynomial function given the graph of a polynomial.	NEW SEATS Bellringer (ACT Geometry Set #6) 6.2: Graphing Polynomial Functions 6.2 Blank Notes 6.2 In Class, Filled Out Notes 6.2 Textbook Pages 6.2 Video: Graphing Polynomials	6.2 HW Assignment 6.2 Answers	
Wednesday November 19					
Thursday November 20	I can graph and solve polynomial functions.	E4: I can divide 2 polynomials using long division.	6.2 Bell Ringer 6.2 QUIZ 6.3: Long & Synthetic Division	6.3 HW Assignment 6.3 HW Answers	Video: Long Division Video: Synthetic Division Box Method Video-Long
Friday					

Date	Power Essential	Learning Target	In-Class Activities	Assignments	Activities for Success
November 21		E5: I can divide 2 polynomials using synthetic division, if possible.	6.3 BLANK Notes 6.3 In Class Notes-Filled Out 6.3 Textbook Notes Video: 6.3 Notes, Long & Synthetic Division		Division
Monday November 24	I can graph and solve polynomial functions.	N1: I can solve polynomial equations by factoring.	6.3 Bellringer 6.3 QUIZ	6.4 HW Assignment 6.4 HW Answers	ALL missing work, quizzes, tests and/or retakes are DUE TUESDAY, December 16 at 4:00 pm!
Tuesday November 25			6.4: Factoring Polynomials 6.4 BLANK Notes 6.4 In Class notes-Filled Out 6.4 Textbook Notes Video: Factoring Polynomials Video: Solving Polynomials by Factoring		
Wednesday November 26	No School - Thanksgiving Break				
Thursday November 27	No School - Thanksgiving Break				
Friday November 28	No School - Thanksgiving Break				
Monday December 1	I can graph and solve polynomial functions.	E6: I can find all of the real & imaginary solutions for a polynomial function.	6.4 Bellringer 6.4 QUIZ	6.6 HW Assignment 6.6 HW Answers Desmos Graphing Calculator	
Tuesday December 2			6.6: Finding Rational Zeros 6.6 Blank Notes 6.6 Filled Out Notes Video: Finding Zeros of Polynomial Functions 6.6 Textbook Notes		
Wednesday December 3	I can graph and solve polynomial functions.	N1: I can solve polynomial equations by factoring.	6.6 Bell Ringer 6.6 HW Questions/Turn In 6.6 QUIZ	6.7 HW Assignment 6.7 HW Answers	
Thursday December 4			6.7: Writing Rational Functions 6.7 Blank Notes 6.7 Filled Out Notes 6.7 Textbook Pages		

Date	Power Essential	Learning Target	In-Class Activities	Assignments	Activities for Success
Friday December 5	I can graph and solve polynomial functions.	Get an A, B, or C on the CH 6 Test	Review Ch 6 Test Answers on Last Page	<u>TEST TUES/WED!</u>	
Monday December 8					
Tuesday December 9	I can graph and solve polynomial functions.	Get an A, B, or C on the CH 6 Test	TEST: CHAPTER 6	Ch 6 Semester Review Questions (Multiple Choice)	
Wednesday December 10			Tangrams Game Level 5 Formula Sheet		
Thursday December 11		SEMESTER REVIEW	Semester 1 Test Question Types	Ch 5 & 6 Semester Review Questions SEM 1 REVIEW ASSIGNMENT SEM 1 REVIEW ANSWERS	
Friday December 12			SEMESTER TEST FORMULA SHEET	SEM 1 WORKED OUT REVIEW ANSWERS	
Monday December 15		SEMESTER REVIEW	Semester 1 Test Question Types Semester Test Calculation Spreadsheet	Ch 1 & 3 Semester Review Questions SEM 1 REVIEW ASSIGNMENT SEM 1 REVIEW ANSWERS	
Tuesday December 16			SEMESTER TEST FORMULA SHEET	SEM 1 WORKED OUT REVIEW ANSWERS	
Wednesday December 17	PERIOD 4	SEMESTER TEST	All Holiday Games		
Thursday December 18	PERIOD 11 (1:20 - 2:45)	SEMESTER TEST	All Holiday Games		
Friday December 19	PERIOD 2 & PERIOD 3 Semester Tests ONLY				