

Algebra 2 & Trigonometry 2025 - 2026

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Mathematical Focus for Algebra 2 Semester 1:

Students begin the course with a study of sequences, which is also an opportunity to revisit linear and exponential functions. Students represent functions in a variety of ways while addressing some aspects of mathematical modeling. This work leads to looking at situations that are well modeled by polynomials before pivoting to a study of the structure of polynomial graphs and expressions. Students do arithmetic on polynomials and rational functions and use different forms to identify asymptotes and end behavior. Students also study polynomial identities and use some key identities to establish the formula for the sum of the first n terms of a geometric sequence.

Next, students extend exponent rules to include rational exponents. They solve equations involving square and cube roots before developing the idea of i , a number whose square is -1 , expanding the number system to include complex numbers. This allows them to solve quadratic equations with non-real solutions.

Building on rational exponents, students return to their study of exponential functions and establish that the property of growth by equal factors over equal intervals holds even when the interval has non-integer length.

Mathematical Focus for Algebra 2 Semester 2:

To begin Semester 2, students use logarithms to solve for unknown exponents and are introduced to the number e and its use in modeling continuous growth. Logarithm functions and some situations they model well are also briefly addressed.

Students learn to transform functions graphically and algebraically. In previous courses and units, students adjusted the parameters of particular types of models to fit data. Here, they consolidate and generalize this understanding. This work is useful in the study of periodic functions that come next. Students work with the unit circle to make sense of trigonometric functions and use those functions to model periodic relationships.

The last unit, on statistical inference, focuses on analyzing data from experiments using normal distributions. Students learn to account for variability in data and estimate population mean, margin of error, and proportions using sampling and simulations. They develop skepticism about news stories that summarize data inappropriately.

Within the classroom activities, students have opportunities to engage in aspects of mathematical modeling. Additionally, modeling prompts are provided for use throughout the course. Modeling prompts offer opportunities for students to engage in the full modeling cycle. These can be implemented in a variety of ways. Please see the course guide for a more detailed explanation of modeling prompts.

Materials

The following materials are important for the teaching-learning process to take place properly in the classroom.

- Notebook or 1.5-inch binder with pockets and notepaper
- 2-pocket folder
- Calculator (see the attached calculator recommendations sheet)
- Ruler or straight edge instrument
- Pencils and Eraser
- Workbook (will be provided for the school and may remain in classroom most of the time)

Units Covered * Semester 1

Semester 1			
Unit 1: Sequences and Functions	Unit 2: Polynomials and Rational Functions	Unit 3: Complex Numbers and Rational Exponents	Unit 4: Exponential Equations and Functions, part 1
19 Instructional Days	27 Instructional Days	20 Instructional Days	19 Instructional Days
9/2/2025 - 9/26/2025	9/29/2025 - 11/6/2025	11/10/2025 - 12/12/2025	12/15/2025 - 1/23/2026

Units Covered * Semester 1

Semester 2			
Unit 4: Exponential Equations and Functions, part 2	Unit 5: Transformations of Functions	Unit 6: Trigonometric Functions	Unit 7: Statistical Inferences
12 Instructional Days	20 Instructional Days	27 Instructional Days	29 Instructional Days
1/27/2026 - 2/11/2026	2/12/2026 - 3/13/2026	3/16/2026 - 4/29/2026	5/4/2026 - 6/15/2026

Grading & Assignments

Students will complete two types of assignments: Preparation and Performance.

Students will be assigned preparation activities on a regular basis which are designed to move students towards achievement of the course standards. Preparation work and activities are an expected component of the course. On these pieces, you will only receive feedback so you can adjust your practice to improve on the next opportunity. There is no need to revise a preparation activity; just make changes and improvement based on the feedback so you gradually improve at the skill.

Performance assignments are how students demonstrate their level of mastery of the course standards. Performance assignments will require students to apply the skills they have gained from completing the preparation activities. These performance activities could be tests, quizzes, discourse, projects, presentations, or some other demonstration of understanding. The final grade will be the comprehensive pattern of student achievement of all the submitted performance work. Performance tasks may address multiple standards at a time. Students may re-attempt (review-revise-redo) a performance activity on a case-by-case basis after sending me an email or meeting with me during office hours to discuss the revision or reimagining of the assignment.

Grading Policies

Grade Entered into I.C.	Meaning of Grade
Advanced (AD)	<ul style="list-style-type: none"> ● The student exhibits exceptional mastery of the course objective. ● It means that you understand and solve problems with <i>no errors</i>. ● Exceeding grade level expectations.
Proficient (PR)	<ul style="list-style-type: none"> ● The student provides evidence of mastery of the course objective. ● It means that you understand but make <i>computational errors</i>. ● Meeting grade level expectations.
Basic (BA)	<ul style="list-style-type: none"> ● The student provides evidence of a beginning understanding of the course objective. ● It means that you almost understand but make <i>conceptual errors</i>. ● Just below grade level expectations.
Minimal (MI)	<ul style="list-style-type: none"> ● The student attempts the task but provides no evidence of mastery of the objective. ● It means that you are still learning and making some major errors. ● Far below grade level expectations.
No Evidence (O)	<ul style="list-style-type: none"> ● There was no attempt or work was plagiarized. ● It means that you were absent or copied off someone else.

The content of this course will be broken down into main content standards or objectives. Within each standard, assessments will be given one of the following grades: **AD, PR, BA, MI, or O**. As new pieces of evidence in each standard will be collected through tests, projects, portfolios, presentations, assignments, etc., older grades may be replaced or averaged to show proficiency/mastery in the standard. This is to help ensure that final grades reflect current knowledge of the student, rather than a student's early efforts.

Infinite Campus (IC) Gradebook

All graded assignments, class activities and assessments/projects will be posted as soon as possible in Infinite Campus Gradebook, no later than two weeks. The overall running grade may be found in Term 2 and Term 4. Individual grades with assigned dates can be found under standards taught.

Attendance

Attendance will not be included directly in the grade, but daily attendance is required and vital to success in any course. The nature of some of the evidence (group work and presentations) will lead to difficulties in being able to make up missed grades.

Students that are absent should:

- Get notes from the Geometry Google Classroom,
- Talk to teacher about content covered the previous class,
- Seek after school tutoring

Students with an excused absence have the number of days absent to make up any work. **Students will be expected to participate in any assessments and presentations on the assigned dates regardless of absences/tardiness**, except for an excused absence of 2 or more classes in a row.

What is expected of me during class?

The general expectations are:

- Arrive on time and attend the entire class.
 - If you are late for class, you must go to room 219 to get a tardy pass. Excessive tardiness and truancy will result in a phone call home or further disciplinary action.
- Avoid distractions and do not be a distraction to others.
- Use appropriate language.
- Show respect for your peers as we don't want to make anyone feel unsafe or unwelcome.
 - All students deserve respect and the opportunity to learn.
- Practice empathy.
 - This is not easy for anyone; be patient and be kind.

We will be doing a variety of activities in class, so the expectations will be tweaked and adjusted as needed to make sure we are getting the most out of the assignment or activity. The expectations above are what we always want to ensure that our classroom community is strong and respectful of everyone.

How can I get extra help?

You can meet with me after class or make an appointment to see me at Hr. 5-1, you may leave a voicemail at (414) 906-5081, you can send me a message via Remind or email romany1@milwaukee.k12wi.us

Daily discussion/practice and homework

Math practice/homework are grades using a four-point system. In order to earn all four points, the work must be on time with every problem attempted and all work shown.

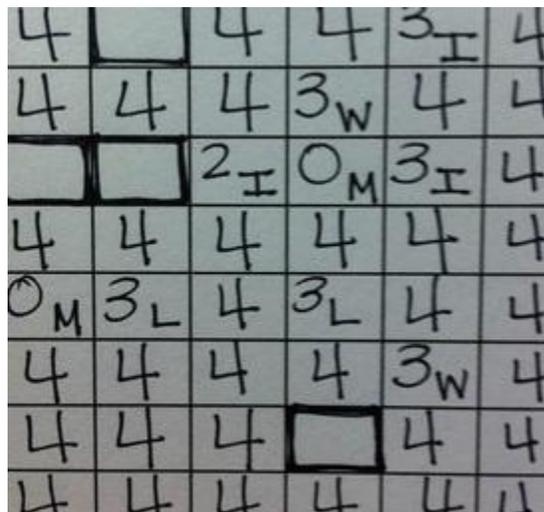
1. First, I check if all problems are done (I just quickly walk around while students work on a warm-up). An assignment that is missing a few problems earns a 3/4 and a paper that is only halfway completed earns a 2/4.
2. Then, I subtract an additional point if the assignment is late or the student did not show all the work when solving. This means that if it was already only halfway done, and then the problems that were answered have no evidence of work, the assignment only earns a 1/4.
3. Occasionally, I also will consider an assignment incomplete if the directions were not followed correctly (if they were asked to explain in complete sentences and did not, for example).

Examples:

- Complete, with all work shown, but late: 3/4
- Skipped the last few problems: 3/4
- Complete, but only showed work on half: 3/4
- Skipped more than 50%: 2/4
- Late AND skipped the last few: 2/4
- Late AND skipped more than 50%: 1/4
- No complete or missing: 0/4

I do allow students to fix up / re-do any assignment with a score of 2/4 or lower. However, they cannot earn a perfect score, because the revisions are late compared to a perfect assignment. An original score of 2/4 can become a 3/4, which makes a big difference in the grade. This encourages students to go back and get the practice that they need instead of giving up.

I use the footnotes shown below in my gradebook. These helped to make students accountable. Parents can see these online next to the score and are aware that the score was for one of these reasons, and not for lack of understanding.



4		4	4	3 _I	4
4	4	4	3 _W	4	4
		2 _I	0 _M	3 _I	4
4	4	4	4	4	4
0 _M	3 _L	4	3 _L	4	4
4	4	4	4	3 _W	4
4	4	4		4	4
4	4	4	4	4	4

Mathematics at Riverside & the Graphing Calculator

In order to successfully participate in any of the mathematics courses at Riverside, **students MUST have their own graphing calculator**. Students will use their graphing calculator regularly in all high school math courses as use of appropriate technology such as graphing calculators is a standard students are expected to show proficiency in. For the 2022-2023 school year, it is very important that all students bring to their math classes one of the recommended **Graphing Calculators** below.

Calculators must have graphing functions!!!

Which calculator to purchase? *

CASIO fx-9750GIII

This is the most basic and least expensive graphing calculator available. Suggested retail between \$35 and \$50 depending on where you look. This calculator is a perfect fit for all years of high school math and science classes and is also able to be used on important assessments such as the ACT.

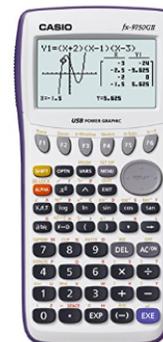
#1 RECOMMENDED CALCULATOR!!!



is
4

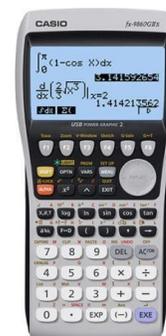
CASIO fx-9750GII

This calculator has recently been discontinued by Casio but does everything you would need a calculator to do. Suggested retail is about \$50. For the majority of high school math students, this calculator will be sufficient for 4 years of high school math.



CASIO fx-9860GII

This calculator has all of the functionality of the fx-9750GII with 1.5MB flash memory, natural display capability, backlighting, and more. This device allows students to download information for classes other than math – e.g. the Periodic Table for Chemistry. This calculator is recommended for students very interested in mathematics. Suggested retail is \$80.



*Returning students may continue to use a previously purchased TI or Casio graphing calculator. Teachers will continue to support students with TI-83, TI-84, Casio fx-9750G, or Casio fx-9860G calculators. It is **NOT** recommended that students purchase a TI-86, TI-89, or Casio calculator other than the ones listed.

Cell Phones & Other Electronic Equipment

Administrative Policy 8.51 states “students are prohibited from activating, using, or displaying electronic devices while on school premises.” This also includes school-related activities off the school premises, such as field trips. To ensure compliance with this policy, all electronic devices will be collected upon entry to the school building and stored in a secure location throughout the day. Students following the new Electronic Device School Procedure will have their devices returned to them at the end of the school day during Period 7

Students must be in all classes daily. Period 7 is the designated class period for students to retrieve cell phones before the end of the school day. Failure to be present in your Period 7 class for the full class hour will result in retrieving your cell phone after school from an administrator.

Tardy to Class:

- a. Class starts when the bell rings.
- b. Students in the hall after the class bell rings will report to room 215. Any student not in class, cafeteria, or study hall during any period and does not have a legitimate pass; will be referred to the tardy room and possibly administration.
- c. Student attendance that reflects frequent hall walking will be referred to administration and/or guidance/Social work team for further intervention.
- d. Punctuality will be recognized through the citizenship grade and school-wide incentives.
- e. Tardy passes are distributed to students who are late to class in Room 215. Tardy passes will be issued for 5 minutes after the bell rings during periods 2-6.

Tardy Pass Stages of Intervention: One-week cycle

Procedures for interventions for excessive tardiness, are charted below

Intervention 1: (Verbal Warning)

First tardy pass issued, a verbal warning is given to the student.

Intervention 2: (Phone Call)

Tardy pass three issued, a phone call home to parents advising them of three tardy passes to class.

Intervention 3: (Counselor Intervention Conference)

Tardy pass five issued, student will meet with their grade level counselor. Student is banned from the time of the infraction until the end of the following week from attending or participating in all extracurricular and athletic events.

Intervention 4: (Behavior Contract w/Administrator)

Second week that student behavior elevates intervention to the third level the tardy pass issued, the student meets with the grade level administrator and puts on a behavior contract. Students are banned from the time of the infraction until the end of the following week from attending or participating in all extracurricular and athletic events.

Intervention 5: Warning 5 (Administrator Suspension Issued)

Student behavior is in violation of the behavior contract. The student meets with the grade level administrator and suspension is issued.