

MORTON EAST HIGH SCHOOL

Math Department

Graphing calculators are an integral part of Pre-Calculus and AP Calculus. You have already learned how to operate a graphing calculator in Pre-Calculus and will continue to use this valuable technology during AP Calculus at Morton East and throughout your math courses in college.

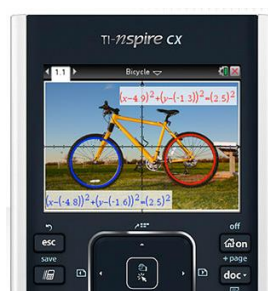
You are required to use a graphing calculator for the AP Calculus exam. If you already have a TI-Nspire or TI-84, you are already prepared.

If you don't have one yet, the Texas Instrument TI-Nspire CX or CX II is the suggested graphing calculator. Calculators can be purchased at local stores or online.

Notice: The TI-Nspire CAS (CAS stands for Computer Algebra System) and TI-89 ARE NOT allowed for the ACT, but are allowed for the SAT & AP exam.



Permitted on SAT & AP Exam



Permitted on ACT, SAT, & AP Exam

Thank You,

AP Calculus AB & BC Teachers

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AP Calculus AB Summer Work 2023-2024

TO: All 2023/2024 AP Calculus AB Students

FROM: AP Calculus AB East Teachers
Mr. Gierut—Room 301, Ms. Kane—Room 351

We are pleased that you have chosen to continue your math sequence by enrolling in AP Calculus AB for next year. To help ensure your success in AP Calculus AB next year, we have created a summer review program. This program contains material that you will complete in-person and online.

Summer work grade (see rubric below) will be given based upon successful completion of each part on-time and participation in the activity day. Details of the activity day & problems to complete are on the following page.

AP Calculus AB Summer Work Rubric

	5	4	3	2	1	0
Activity Days	Attended Activity Day with a 100% success on activities	Attended Activity Day with a 86-99% success on activities	Attended Activity Day with a 75-85% success on activities	Attended Activity Day with a 61-74% success on activities	Attended Activity Day with a 50-60% success on activities	Did not attend Activity Day OR less than 50% success on activities
Part I	Completed all topics on-time with 100% success on topics	Completed all topics on-time with 86-99% success on topics	Completed all topics on-time with 75-85% success on topics	Completed all topics on-time with 61-74% success on topics	Completed all topics on-time with 50-60% success on topics	Not completed on-time OR missing topics OR less than 50% success on topics
Part II	Completed all topics on-time with 100% success on topics	Completed all topics on-time with 86-99% success on topics	Completed all topics on-time with 75-85% success on topics	Completed all topics on-time with 61-74% success on topics	Completed all topics on-time with 50-60% success on topics	Not completed on-time OR missing topics OR less than 50% success on topics
Part III	Completed all topics on-time with 100% success on topics	Completed all topics on-time with 86-99% success on topics	Completed all topics on-time with 75-85% success on topics	Completed all topics on-time with 61-74% success on topics	Completed all topics on-time with 50-60% success on topics	Not completed on-time OR missing topics OR less than 50% success on topics

There will be a quiz on these topics within the first days of school.

Below is a list of supplies you will NEED for AP Calculus. Shop for the items when they are on sale and be prepared the first day of school. AP Calculus is a college-level course and you are expected to be prepared with your materials each day.

AP Calculus Supplies Needed:

Pencils/Erasers

Binder

Paper

Graphing Calculator (TI-Nspire CX or CX II or TI-Nspire CX CAS)

***** **YOU MUST HAVE A GRAPHING CALCULATOR** *****
***** **EVERY DAY, IN CLASS AND AT HOME** *****

Calculus AB Summer Work Requirements

- Summer Work Activity Day: May 31st at 8am-11:45am (AM) or 12:15pm-4:00pm (PM)
- Log on to your Khan Academy Account. Complete Part I online at Khan Academy by June 21st
 - Get Ready for Limits & Continuity*
 - a) **Evaluating Functions:** Evaluate functions expressions
 - b) **Inputs and Outputs of a Function:** Functions inputs & outputs: graph
 - c) **Composing Functions:** Evaluate composite functions
 - d) **Get Ready for Limits & Continuity:** Quiz 1
 - e) **Get Ready for Limits & Continuity:** Quiz 2
 - f) **Radians:** Unit Circle (with radians)
 - g) **Trig Values on the Unit Circle:** Trig values of special angles
- Log on to your Khan Academy Account. Complete Part II online at Khan Academy by July 12th
 - Get Ready for Limits & Continuity*
 - a) **Factoring Quadratics Intro:** Factoring quadratics intro
 - b) **Factoring Quadratics Intro:** Factoring quadratics with a common factor
 - c) **Factoring Quadratics by Grouping:** Factor quadratics by grouping
 - d) **Factoring Quadratics with Difference of Squares:** Difference of squares intro
 - e) **Reducing Rational Expressions to Lowest Terms:** Reduce rational expressions to lowest terms
 - f) **End Behavior of Rational Functions:** End behavior of rational functions
 - g) **Discontinuities of Rational Functions:** Rational functions: zeros, asymptotes, and undefined points
- Log on to your Khan Academy Account. Complete Part III online at Khan Academy by August 2nd
 - Get Ready for Limits & Continuity*
 - a) **Multiplying and dividing rational expressions:** Multiply & divide rational expressions: Error analysis
 - Get Ready for Differentiation*
 - b) **Point-Slope Form:** Point-slope form
 - c) **Average Rate of Change:** Average rate of change: graphs & tables
 - d) **Properties of Exponents:** Properties of exponents intro (rational exponents)
 - Get Ready for Applying Derivatives to Analyze Functions*
 - e) **Zeros of Polynomials:** Zeros of polynomials (factored form)
 - Get Ready for Applications of Integration*
 - f) **Solving Equations by Graphing:** Solving equations graphically: graphing calculator