MORTON EAST HIGH SCHOOL

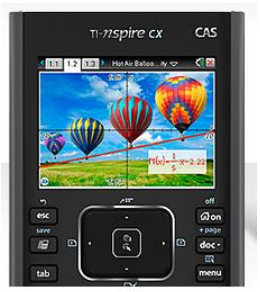
Math Department

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.

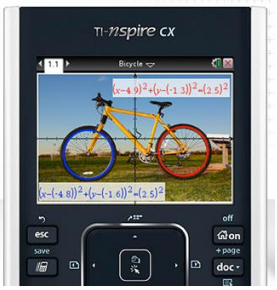
You are required to use a graphing calculator for the AP Calculus exam. If you already have a TI-Nspire or TI-84, you are already prepared.

If you do not have one yet, the Texas Instrument TI-NSpire CX 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 & AP Exam

Thank You,

AP Calculus AB & BC Teachers
Mr. Gierut: pgierut@jsmorton.org
Ms. Kane: bkane@jsmorton.org

AP Calculus BC's AB Part of Summer Work 2021-2022

TO: All 2021/2022 AP Calculus BC Students

FROM: AP Calculus BC East Teacher
Ms. Kane—Room 351

We are pleased that you have chosen to complete your math sequence by enrolling in AP Calculus BC for next year. To help ensure your success in AP Calculus BC next year, we have created a summer review program. This program contains material that you will complete online and during the Boot Camp. The online questions contain information from your previous math courses *and* the AP Calculus A topics on Limits, Continuity, Definition of the Derivative, and Rules for Derivatives of functions and vectors will be completed during the Boot Camp.

Calculus BC's AB Part of Summer Work Requirements:

- Complete Part I online at Khan Academy by June 18th
- Complete Part II online at Khan Academy by July 14th
- Complete Part III online at Khan Academy by August 4th

Summer work grade (see rubric below) will be given based upon successful completion of each part on-time and participation in the activity day.

AP Calculus BC's AB Part of Summer Work Rubric

	5	4	3	2	1	0
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

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 TI-Nspire CX CAS)

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

AP Calculus BC's AB Part of Summer Work 2021-2022

- Write your work for these questions. As in all mathematics courses, the importance of showing your work and arriving at the correct answer are equally important. Answers only are not acceptable for an AP course. Please make sure to show all your steps in a clear way.
- Turn in your work as ONE word file (insert images of your work as into a word file) in Teams assignment by the due date. Late work is never acceptable for Calculus students.
- If you choose to redo assignment for higher grade, submit both sets of work in Teams.

Part I: Must be completed and submitted by June 18th

a) Functions: Unit Test
Before completing the Test, you may want to practice or watch videos on functions:
(Practice at: https://www.khanacademy.org/math/algebra2/manipulating-functions)

b) Polynomials: Unit Test
Before completing the Test, you may want to practice or watch videos on polynomials:
(Practice at: https://www.khanacademy.org/math/algebra2/polynomial-functions)

Part II: Must be completed and submitted by July 14th

a) Radical Relationships: Unit Test
Before completing the Test, you may want to practice or watch videos on radical relationships:
(Practice at: https://www.khanacademy.org/math/algebra2/radical-equations-and-functions)

b) Rational Relationships: Quiz 1
Before completing the Quiz, you may want to practice or watch videos on rational relationships:
(Practice at: https://www.khanacademy.org/math/algebra2/rational-expressions-equations-and-functions)

c) Rational Relationships: Quiz 2
Before completing the Quiz, you may want to practice or watch videos on rational relationships:
(Practice at: https://www.khanacademy.org/math/algebra2/rational-expressions-equations-and-functions)

d) Rational Relationships: Quiz 3
Before completing the Quiz, you may want to practice or watch videos on rational relationships:
(Practice at: https://www.khanacademy.org/math/algebra2/rational-expressions-equations-and-functions)

Part III: Must be completed and submitted by Aug 4th

a) Exponential Growth & Decay: Quiz 1
Before completing the Quiz, you may want to practice or watch videos on exponential growth:
(Practice at: https://www.khanacademy.org/math/algebra2/exponential-growth-and-decay-alg-2)

b) Exponentials & Logarithms: Quiz 2
Before completing the Quiz, you may want to practice or watch videos on exponents & logarithms:
(Practice at: https://www.khanacademy.org/math/algebra2/exponential-and-logarithmic-functions)

c) Exponentials & Logarithms: Quiz 3
Before completing the Quiz, you may want to practice or watch videos on exponents & logarithms:
(Practice at: https://www.khanacademy.org/math/algebra2/exponential-and-logarithmic-functions)

d) Advanced Equations & Functions: Quiz 1
Before completing the Quiz, you may want to practice or watch videos on advanced functions:
(Practice at: https://www.khanacademy.org/math/algebra2/advanced-functions)

AP Calculus BC Summer Review – Calculus A Topics

- Complete the following assignments to be given in class:

  HW1 – Limits
  HW2 – Continuity
  HW3 – Parametric and Vectors
  HW4 – Polar Functions and Rates of Change & the Derivative

  As in all mathematics courses, the importance of showing your work and arriving at the correct answer are equally important. Answers only are not acceptable for an AP course. Please make sure to show all your steps in a clear way.

  Remember the following 3 items as you are writing your work: notation, notation, notation.

  The problems that warrant the use of a graphing calculator are indicated with a .

  You can find some helpful lessons available at: www.mathkanection.com

****There will be a test on the AP Calculus A topics (Limits, Continuity, Parametric/Vectors, Polar, and Rates of Change & the Derivative) on the last day of BC Boot Camp.****

Remember that you selected to take BC and were willing to work at this challenging pace of learning two semesters of college-level Calculus.