West Essex Regional School District

AP Calculus BC Summer Packet 2023-2024

Google Classroom Code : r7cpeqa

In order to complete the curriculum before the AP Exam in May, it is necessary to do some preparatory work this summer. The summer assignment helps you to focus on the mathematical skills and content you will need to use in solving Calculus problems. These problems deal with skills and content that you studied in Pre-Calculus and Algebra 2.

- ★ **Complete the "Algebra and Precalc Review" in DeltaMath. These skills are essential in creating a solid foundation for understanding. Do more than required as needed.**
- ★ **Complete the Chapter 1 and Chapter 2 assignments using the textbook pages provided. The textbook and solutions are posted in Classroom. Feel free to access the textbook if you'd like to look at the worked out examples. Use the "Extra Practice" problems as needed.**

- ★ **You will be tested on the topics from Chapter 1 and Chapter 2 within the first few days of school (depending on the schedule). All summer assignments will be collected at the time of the test.**
- ★ **Please complete ALL work neatly.**
- ★ **It is your responsibility to know these topics by the first day of school. If you don't know or remember how to do a problem, there are plenty of resources online such as Khan Academy, PatrickJMT, ProfRobBob, and FlippedMath.**

At this level, doing homework is more than just getting the problems done. The problems should be a learning experience. Take your time and make sure you understand the concepts behind each problem. Seek out help to deal with problems and/or concepts you find challenging. I recommend that you try to meet with other AP Calculus BC students in small groups this summer to help each other. We are all in this together!

	Assignment (Required)	Extra Practice (Optional)
Algebra and PreCalculus Review		
See assignment on DeltaMath.	Use the class code: N4Q7-L6GS and complete assigned problems	Do more practice as needed.
Chapter 1: Limits and Their Properties		
1.2 Finding Limits Graphically and Numerically	Pg. 54 (13, 16-24 even, 25-28)	Pg. 54 (15-23odd, 29, 30)
1.3 Evaluating Limits Analytically	Pg. 67 (12, 22, 31-35 odd, 54, 56, 60, 62, 67, 87)	Pg. 67 (17-22, 27-36, 41-72, 85-88)
1.4 Continuity and One-Sided Limits	Pg. 78 (4, 6, 10, 12, 14, 18, 20, 41, 44, 50, 52, 64, 66, 80)	Pg. 78 (1-10, 12-14, 17-22, 27-30, 35-54, 63-68, 77-80)
1.5 Infinite Limits	Pg. 88 (1-4, 38, 40, 42, 46)	Pg. 88 (1-8, 37-48)
Chapter 2: Differentiation		
2.1 The Derivative and the Tangent Line Problem	Pg. 103 (1, 4, 8, 18, 24, 44, 54, 56, 76, 78, 83, 85, 95) #18, 24 using the limit definition of the derivative #76, 78 using the alternative form of the derivative	Pg. 103 (1, 2, 4-24, 73-76, 78-88, 93-98)
2.2 Basic Differentiation Rules and Rates of Change	Pg. 115 (8, 13, 19, 28, 29, 36, 37, 41, 43, 46, 48, 54, 58a, 59, 63)	Pg. 115 (3-64)
2.3 Product & Quotient Rules & Higher-Order Derivatives	Pg. 126 (2, 8, 9, 13, 18, 26, 28, 45, 50, 51, 62, 68a, 76, 93, 98, 102)	Pg. 126 (1-34, 39-54, 59-68, 73-76, 93-104)
2.4 The Chain Rule	Pg. 137 (10, 20, 24, 28, 29, 50, 59, 68, 73, 78, 80, 90, 94, 95, 97)	Pg. 137 (7-34, 45-65, 67-82, 89-100)

See you in August!!