Summer Assignment
Course Title: BC Calculus
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Purpose of Assignment: Review Precalculus concepts for Calculus readiness. Topics include: Domain and Range, Composition of Functions, Graphing, and Limits, Derivatives, Integrals and/or Parametrization and Polar Equations as well as recommended but optional topics of Conics and Vectors.

Estimated time to complete Assignment: 6 hours

Due date and method of assessment for Assignment: Due by day of the test on Chapter 1 and selected topics in precalculus. The test is the first class period in the second week of school. Your summer assignment is worth 60 points in the assignments category.

The summer assignment is required for everyone, but the assignment differs depending on the classes you have already taken:

Packet #1, required for everyone, will be checked for accuracy for everyone.

All other packets are checked for completion and are recommended for everyone.

Prerequisites and accompanying assignments: AB Calculus or IB SL1 A&A are prerequisite courses for BC Calculus. If you took AB Calculus, completion of packet 2A is required, and if you took IB SL1 A&A math, completion of packet 2B is required. If you did not take either of these courses, it is recommended that you do the AB Calculus summer assignment and sign up for that class.

Instructions for Assignment: In the packets (hard copies of all can be found in Counseling) complete the following as outlined on the table provided:

Be sure that you are not just **doing** the exercises but are really **understanding** them. If you think you missed the point or do not understand any aspect of a problem, please ask.

BC Summer Assignment Directions: all are non-calculator unless *graphing calculator permitted

Packet 1	You may consult any math notes or websites or work with others, but your completed work must represent your own understanding.	#1-46 **completed neatly on a separate paper.** Use <u>proper Mathematical form</u>. *Circle all answers.* Work turned in on the worksheet will not be graded. No calculator is allowed in the explanations.	**Required for everyone.** Will be handed in after checking with peers in class. **Graded on accuracy. Be prepared to be called on to present.**
Packet 2A	Read 9.4 Parametrizations of Plane Curves Read 9.6 Polar Coordinates Read 9.7 Graphing in Polar Coordinates	**Exercises 9.4** # 1,7,11,19,25,**42*** (graph #42 on calculator in parametric mode and then sketch on paper) **Exercises 9.6** (p. 755) # 1,5,7,11,23,35,43,55 **Exercises 9.7** (p. 763) # 5,7,13,17,19,21, 31,**39*, 43***(for 39, estimate three points of intersection with the graphing calculator then confirm them by calculating the intersection points by hand**)**	**Required** for students currently in AB Calculus otherwise completed in class. Check with key provided at the end of the packet. **Graded for completion.**
Packet 2B	Read 1.1 and 1.2: Average and Instantaneous Rate of Change Read 1.3 and 1.4 Definite Integrals	**Exercise 1.1** (p. 5) #**1*,2*** **Exercise 1.2** (p.11) Q1-10 & #5,6,**13*,17***,23,27,29 **Exercise 1.3** (p.16) Q1-10 & #**2*,4***,6,**9***,11-14 **Exercise 1.4** (p.21) Q1-10 & #**1*,2*,7***& **Review** (p.26) **R1***, R3, **R4***	**Required** for students currently IB SL 1 A&A, otherwise recommended but optional. Check with key provided. **Graded for completion.**
Packet 3	Read 9.1 Conics Read 9.3 Vectors Read 9.4 Vectors	**Exercises 9.1** (p. 719) # 1-8,15,23,33,39, 43,63,67,77,79 **Exercises 9.3** (p. 673) # 1,9,**31*,35*,41*,45*** **Exercises 9.4** (p. 683) #5,11,23,29,37,42,47,51	Recommended, but optional for everyone. Check with key provided. Not for extra credit.