

# AP CALCULUS SUMMER REVIEW

AP Calculus is a challenging college level course. There is a certain body of knowledge that a student is assumed to have mastered before entering the course. To be properly prepared for the course, the student needs to thoroughly review several concepts from algebra and trigonometry before the first day of class. Below is given a list of topics to be reviewed by the student. The student must do the problems listed below representing these concepts before the first day and be prepared to take a qualifying test without a calculator during the first week of school. *(The student will turn in the problems that he/she does in preparation for the course on the first day of class.) The student will need to score at least 70% on the first test in order to stay in the class. The problems are taken from our Calculus text: Rogawski's Calculus for AP (Early Transcendentals) 2<sup>nd</sup> Edition. by Jon Rogowski. WH Freeman and Company, New York. ISBN-13: 978-1429250740*

## CONCEPTS TO BE MASTERED:\*

- ✓ Definition of absolute value
- ✓ Exponents
- ✓ Rational expression
- ✓ Inequalities:
- ✓ Using a graphics calculator
- ✓ Lines:
- ✓ Modeling variation:
- ✓ Functions:
- ✓ Graphs of functions
- ✓ Transformations
- ✓ Composite functions:
- ✓ Inverses:
- ✓ Exponential functions:
- ✓ Logarithmic functions:
- ✓ Solving exponential and logarithmic functions:
- ✓ Trigonometry:
- ✓ Analytic trigonometry:
- ✓ Trigonometric equations:

## **SUMMER WORK PROBLEMS**

- **Problems taken Calculus for AP: Second Edition by Rogawski**

**Pp 10,11 # 3-22, 36,37,44-50,55-61,65-70,74**

**Pp 19 # 3,4,6,7,11,14,15,17,20,23,24,33,50,51**

**Pp 24,25 # 1-23(odd), 27-33(odd)**

**Pp 31-33 # 1-4, 6,8-14,16,17,23,24**

**Pp 41,42 # 1-5, 8,9,23-50**

**Pp 50 #1-34**

**Pp 56 #1-8 (Exercises at top of page )**

**Pp 56-58 Chapter Review**

**#7-11,13,15,16,17,20,21,22,25,36,38,43,45-50**

**All appropriate work must be shown. Any student who does not complete the summer work has grounds for dismissal from AP Calculus**

**I have read and understand what is expected on me for the AP Calculus class at CVCS. I will prepare for and be ready to take the initiation exam in order to qualify to stay in the class.**

**Student:** \_\_\_\_\_

**Parent or Guardian:** \_\_\_\_\_

**Date:** \_\_\_\_\_