**AP Calculus Summer Assignment –** *Reviewing Pre-Calculus Skills*

**Complete to 80%** Updated 7/25/2023

*(Follow the name… sometimes the numbers change.)*

**Pre-Calculus IXL**

# A. Functions

1. Domain and Range

11. Composition of Functions *(Must reset back to 0 first.)*

12. Identify inverse functions

# B. Families of functions

1. [Function transformation rules](https://www.ixl.com/math/calculus/function-transformation-rules)
2. [Translations of functions](https://www.ixl.com/math/calculus/translations-of-functions)

# C. Quadratic functions

2. Characteristics of a quadratic function

6. Solve a quadratic equation by factoring

# F. Exponential and logarithmic functions

1 [Domain and range of exponential and logarithmic functions](https://www.ixl.com/math/calculus/domain-and-range-of-exponential-and-logarithmic-functions)  *(Must reset back to 0 first.)*

2 Match exponential functions and graphs

5 [Evaluate logarithms](https://www.ixl.com/math/calculus/evaluate-logarithms)

6 [Change of base formula](https://www.ixl.com/math/calculus/change-of-base-formula)

7 [Product property of logarithms](https://www.ixl.com/math/calculus/product-property-of-logarithms)

8 [Quotient property of logarithms](https://www.ixl.com/math/calculus/quotient-property-of-logarithms)

9 [Power property of logarithms](https://www.ixl.com/math/calculus/power-property-of-logarithms)

11 [Evaluate logarithms using properties](https://www.ixl.com/math/calculus/evaluate-logarithms-using-properties)

12 Graph logarithmic functions

# M. Trigonometric functions

3 [Quadrant](https://www.ixl.com/math/calculus/quadrants)

5 [Find trigonometric ratios using right triangles](https://www.ixl.com/math/calculus/find-trigonometric-ratios-using-right-triangles)

6 [Find trigonometric ratios using the unit circle](https://www.ixl.com/math/calculus/find-trigonometric-ratios-using-the-unit-circle)

8 [Find trigonometric ratios using reference angles](https://www.ixl.com/math/calculus/find-trigonometric-ratios-using-reference-angles)

**Calculus IXL**

# Introduction to Limits

# 3 Determine if a limit exists