



**Convent &
Stuart Hall**
Schools of the Sacred Heart San Francisco

Summer Engagement Philosophy: Summer should be a time for fun, relaxation, and family time. However, intentional practice of math skills has been shown to be helpful for student retention of topics learned during the previous school year. The assigned work is designed to **review** some essential skills/concepts/math facts to ensure a smooth transition back to school.

Expectations: Students are expected to complete the assigned work. Our goal is for students to spread out this practice with approximately one hour per week so there is a continual engagement with mathematics. Teachers will be checking progress prior to the first day of school. This is intended to be a part of the first check for understanding prior to our beginning units.

How to be successful:

- Make a practice plan and set goals in order to complete the required work by the start of the school year. Spacing the practice throughout the summer will be more effective in terms of keeping skill sets in place (ex: Monday Math fun!)
- Establish a place where you can work without distractions and encourage independence when appropriate.

Students entering **IB Analysis Year 1 (SL and HL)** should complete the following review assignments:

Topics for Summer Review:

- Function Notation
 - [Worksheet](#)
- Graphing Quadratic Functions
 - Graphing from the equation
 - X-int, y-int, vertex, domain, range
 - Creating the equations from the graph
 - [Packet](#) + [Answer Key](#)
- Exponential Graphs
 - Y-int, horizontal asymptote, domain and range

- [Worksheet 1](#)
- Log Rules
 - [Worksheet 1](#)
 - [Worksheet 2](#)
- Solving log and exponential equations (see worksheet in folder)
- Word Problems
- Trigonometric Functions
 - Using the unit circle to evaluate trig ratios (first quadrant should be memorized)
 - [Trig Worksheet: Trig Ratios at Special Angles](#)
 - Solving trig equations
 - [Trig Worksheet: Solving Trig Equations](#)
 - HL ONLY: Graphing sine, cosine, and tangent using transformations
 - [Trig Worksheet: Graphs of Trig Functions](#)