

Dear Perspective Accelerated Pre-Calculus Students & Guardians,

On behalf of the Valley Christian High School mathematics department, we want to say congratulations on successfully making it through the academic year. The mathematical “step” from Algebra 2 to Accelerated Pre-Calculus can be very challenging as this rigorous course is fast-paced and tailored to prepare students for AP Calculus AB. There are several topics covered in the Honors Algebra 2 class which Algebra 2 does not cover, due to pacing constraints. Students who do not take the time to catch up on the missing topics find it difficult to be successful in Accelerated Pre-Calculus. The Algebra 2 staff met and came up with a brief list of topics students need to learn over the summer to bridge this knowledge gap.

This assignment is not mandatory but highly recommended.

- The following assignments are taken from: Holt McDougal Algebra 2 (HMH Fuse Algebra 2) – Common Core App Edition
- Students should read the explanations found in the book for each section before attempting the assignments.
- Solutions are posted online. <https://learn.vcs.net/course/view.php?id=1112>

Chapter Section/Concept/Assignment

1. Chapter 12.5 → Parabolas (focus and directrix) [textbook pages 924-930]
Do Problems: **12.5** pgs. 928-929 #18 – 36m3, 37; **12.6** pg. 937 #22, 26, 30
2. Chapter 10.4 → Inverses of Trigonometric Functions [textbook pages 793-798]
Do Problems: **10.4** pgs. 796-798 #17-35odd
3. Chapter 10.5 → Law of Sines [textbook pages 801-808]
Do Problems: **10.5** pgs. 805-807 #15 – 30m3, 32, 34, 35, 38, 40
4. Chapter 10.6 → Law of Cosines and Heron’s Formula [textbook pages 809-816]
Do Problems: **10.6** pgs. 813-816 #9 – 24m3, 25 – 33 odd
5. Chapter 11.1 → Graphs of Sine and Cosine [textbook pages 833-840]
Do Problems: **11.1a** pgs. 838-840 #12 – 18, 24, 33, 35 **11.1b** #19-23, 25, 27, 34, 36
6. Chapter 11.2 → Graphs of other Trig Functions [textbook pages 841-846]
Do Problems: **11.2a** pgs. 844-846 #17-20, 23-25, 27-30 **11.2b** #10-16 even, 21, 22, 31-33

Practicing ALEKs over the summer is a great way to keep algebra skills sharp. The Accelerated Pre-Calculus class prerequisites assume students walk into the school year with strong Algebra 2 skills, which means there is **no** Algebra 2 review at the beginning of the semester.

Our hope is that you have a restful summer, and that everyone returns to school refreshed and ready to enter the exciting realm of Accelerated Pre-Calculus.

We are looking forward to meeting you in the fall!

—The Accelerated Pre-Calculus Teaching Team