

AP CALCULUS AB SUMMER ASSIGNMENT

Week Eight: Inverse Trigonometric Functions, Solving Trigonometric Equations, and Basic Trigonometric Identities

ALL HONORS/STEM/AP MATH STUDENTS AT MORGANTOWN HIGH SCHOOL ARE REQUIRED TO COMPLETE THE SURVEY USING THE LINK BELOW IN ORDER TO FINISH THE SUMMER ASSIGNMENT. THANK YOU FOR YOUR HARD WORK, AND WE LOOK FORWARD TO SEEING YOU WHEN SCHOOL STARTS IN AUGUST!

<https://bit.ly/SummerAssignmentSurvey>

DIRECTIONS

1.) VIDEO(S)

You may remember all of the topics that are being reviewed this week. However, if you have forgotten any of these concepts (and if you have, it isn't a big deal...and it doesn't mean that you don't belong in calculus!), then please watch the following videos:

- *Inverse Trigonometric Functions:*

<https://www.khanacademy.org/math/trigonometry/trig-equations-and-identities/inverse-trig-functions/v/inverse-trig-functions-arcsin>

- *Solving Trigonometric Equations:*

<https://www.khanacademy.org/math/trigonometry/trig-equations-and-identities/xfefa5515:sinusoidal-equations/v/sine-solutions> AND

<https://www.khanacademy.org/math/trigonometry/trig-equations-and-identities/solving-sinusoidal-models/v/interpreting-solutions-of-trigonometric-equations>

- *Basic Trigonometric Identities:* (YOU ONLY NEED TO WORRY ABOUT THE RECIPROCAL, PYTHAGOREAN, AND DOUBLE ANGLE IDENTITIES.)

<https://www.khanacademy.org/math/trigonometry/trig-equations-and-identities/xfefa5515:angle-addition-identities/v/trigonometry-identity-review-fun> AND

<https://www.khanacademy.org/math/trigonometry/trig-equations-and-identities/using-trig-identities/v/sine-angle-addition-2>

2.) PRACTICE PROBLEMS

Please complete the required practice problems for these topics (you will be required to turn in these problems as part of your summer assignment grade in August with all of the mathematical work/computations that lead to a correct answer for each problem): [AP Calculus AB Practice Problems \(Week Eight\)](#)

3.) CHECK YOUR ANSWERS

Please check your answers using the attached answer key. If you missed any of the questions, go back and try to rework the problem until you can get a correct answer. If you are unable to get a correct answer to any of the problems (correct answers along with mathematical work/computations that lead to correct answers are required when you turn in your summer assignment in August), please consider joining the virtual help sessions as described below): [AP Calculus AB Practice Problems Solutions \(Week Eight\)](#)

4.) VIRTUAL HELP SESSION

If you would like to join us for a virtual help session to have any questions you may have answered, please go to the MHS Math Summer Assignments page (<https://sites.google.com/boe.mono.k12.wv.us/mhs-math-summer-assignments/home>), and scroll down to the bottom of the page. There, you can find the days and times for the virtual help sessions for this week in addition to the link to the Google Meet.