

Grades 11 and 12

Distance Learning Module 4: Week: April 20th – April 24th

Mathematics: Pre-College Algebra & Trigonometry (PCAT) - [Unit 4 Polynomials](#)

Targeted Goals from Stage 1: Desired Results

Content Knowledge: when a polynomial is completely factored the product of the first term of all those factors is the first term of the polynomial, when a polynomial is completely factored the product of the second term of all those factors is the last term of the polynomial, the degree of the polynomial tells you how many solutions the equation has (Fundamental Theorem of Algebra), the factors of the polynomial correspond to the x-intercept of the graph

Vocabulary: factor, term, trinomial, Greatest Common Factor, Long Division, Synthetic Division, Complex Number, Imaginary, End Behavior

Skills: factoring polynomials (trinomials, difference of squares, difference of cubes), division of polynomials, solving polynomial equations up to degree 4, solving equations by factoring, working with complex numbers, graphing polynomials of degree 2 and higher, estimating the value of a function at the ends of the graph, creating an equation from a given equation

Expectation:

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Monday: Operations on polynomials: Adding/subtracting/multiplying	Khan Academy Video: Operations on Polynomials	Khan Academy Classroom Assignment: Operations on Polynomials
Tuesday: Operations on polynomials: Adding/subtracting/multiplying	Optional Live Zoom Review	Operations on Polynomials Worksheet (students will upload a photo of their work): PDF Worksheet

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Wednesday: Synthetic Division Intro	Khan Academy Video 1: Synthetic Division Khan Academy Video 2: Synthetic Division	Khan Academy Classroom Assignment: Synthetic Division
Thursday: Synthetic Division	Optional Live Zoom Review	Synthetic Division Worksheet (Students will upload a photo of their work): PDF Worksheet
Friday: Polynomial Remainder Theorem	Khan Academy Video 1: Intro to the Remainder Theorem Khan Academy Video 2: Finding the Remainder from an Equation Khan Academy Video 3: Remainder Theorem Checking Factors	Remainder Theorem Worksheet (Students will upload a photo of their work): PDF Worksheet

Week criteria for success (attach student checklists or rubrics):

- Students will be able to add, subtract and multiply polynomials
- Students will be able to synthetically divide polynomials
- Students will know what the Remainder Theorem is
- Students will understand the importance of when getting a remainder of zero when dividing polynomials

Supportive resources and tutorials for the week (plans for re-teaching): Khan Academy, Kuta Software worksheets, Office Hours

Synthetic Division Extra Video: YouTube link posted in Google classroom

Remainder Theorem Extra Video: : YouTube link posted in Google classroom