

Grades 11 and 12

Distance Learning Module 5: Week: April 27 – May 1st

Mathematics: Pre-College Algebra & Trigonometry - [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: Factoring Polynomials: GCF	Khan Academy Video: Factoring Trinomials using GCF method Khan Academy Article: Factoring Polynomials using GCF	Khan Academy Classroom Assignment: Factoring Polynomials using GCF
Tuesday: Factoring Polynomials: Grouping	Khan Academy Video 1: Factoring higher degree polynomials by grouping	Factoring Polynomials by Grouping 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: Factoring Polynomials: Quadratic Trinomials, $a=1$	Khan Academy Video: Factoring Quadratics when $a=1$	Khan Academy Classroom Assignment: Factoring Quadratics when $a=1$
Thursday: Factoring Polynomials: Quadratic Trinomials, $a>1$	Khan Academy Video: Factoring Quadratics using 'grouping'	Khan Academy Classroom Assignment: Factoring Quadratics by Grouping
Friday: Factoring Polynomials: Sum/Difference of Squares and Cubes	Factoring by difference/sums of Cubes and Difference of Squares Video	Sum/Difference of Cubes and Difference of Squares 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 factor polynomials using the following methods:
 - GCF
 - Grouping
 - "Guess and Check"
 - Sum/Difference of Cubes and Difference of Squares

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

Extra video on factoring polynomials:

YouTube video Factoring Polynomials - By GCF, AC Method, Grouping, Substitution, Sum & Difference of Cubes

YouTube video Factor Polynomials - Understand In 10 min