Grade 9
Distance Learning Module 3:   Week of: April 13 - April 17

Mathematics: Algebra I, Level 2-Factoring Trinomials *Modified from [Unit F - Beyond Straight Lines](#)*

Targeted Goals from Stage 1: Desired Results

Content Knowledge: factoring and distributing are inverse operations, some quadratic expressions (difference of squares) can be quickly factored using patterns

Vocabulary: leading coefficient, square of a binomial, difference of squares, GCF (greatest common factor), perfect square trinomial, factoring

Skills: factoring $x^2 + bx + c$ expressions (leading coefficient = 1), factoring $ax^2 + bx + c$ expressions (leading coefficient not equal to 1), factoring differences of squares

Expectation:

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Monday: Factoring trinomials with a leading coefficient of 1	Live instruction, review Khan materials from Thursday as needed (below). Khan Academy: Factoring quadratics as (x+a)(x+b) (video) Factoring quadratics as (x+a)(x+b) Ex. 2 (video) More examples of factoring quadratics as (x+a)(x+b) (video)	Khan Academy: Factoring simple quadratics (review) Factoring Trinomials Practice Worksheet Do your work for this worksheet on lined paper. Then take a clear picture of it and submit to Google Classroom.
Tuesday: Factoring trinomials when the leading coefficient isn't 1 (day 1 - Guess and Check technique)	Live mini-lesson for guess & check technique and/or Mr. Buller's tutorial video	Factoring Trinomials (leading coefficient not equal to 1) Practice Worksheet Do your work for this worksheet on lined paper. Then take a clear picture of it and submit to Google Classroom.
Wednesday: Factoring trinomials when the	Khan Academy:	Khan Academy:

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
leading coefficient isn't 1 (day 2 - Factoring by Grouping technique)	Intro to grouping (video) {this is the factor by grouping approach} as well as some GCF factoring before factoring trinomials. Stops being useful at 13:56. Factoring by grouping (article) Factoring quadratics by grouping (video) Factoring quadratics: leading coefficient ≠ 1 (article)	Factor quadratics by grouping (practice)
Thursday: Factoring trinomials completely (GCF and product of 2 binomials)	Khan Academy: Factoring quadratics: common factor + grouping (video) Factoring quadratics: negative common factor + grouping (video)	Factoring Trinomials with GCF - Leading Coefficient = 1 Factoring Trinomials with GCF - Leading Coefficient not = 1
Friday:	Khan Academy: Difference of squares intro (video) Difference of squares | Factoring quadratics (article) Factoring difference of squares: leading coefficient ≠ 1 (video) Factoring difference of squares: analyzing factorization (video) (optional) Factoring difference of squares: shared factors (video) (optional)	Khan Academy: Difference of squares intro (practice) Difference of squares (practice)

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

By the end of this module, students will be able to:

- factor trinomials with a leading coefficient of 1
- factor trinomials with a leading coefficient not equal to 1

- factor trinomials completely (including GCF and mixed practice)
- factor differences of squares

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