

Grade 9

Distance Learning Module 9: Week of: 6/1/2020-6/5/2020

The Quadratic Formula

Algebra I Level 2 - Modified from [Unit F - Beyond Straight Lines](#)

Targeted Goals from Stage 1: Desired Results

Content Knowledge: The discriminant of a quadratic expression can give insight about factoring that expression, the discriminant of an equation can give insight about the solutions to that equation, all real solutions to a quadratic equation in the form $ax^2 + bx + c = 0$ can be found using The Quadratic Formula.

Vocabulary: Quadratic formula, discriminant

Skills: Solve with the quadratic formula, Find and analyze the discriminant

Expectations:

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Monday: The Quadratic Formula	Live Instruction: Introduction to the quadratic formula. Solve quadratic equations that are not in standard form. Optional resources: The quadratic formula Algebra (video) Quadratic formula explained (article) Worked example: quadratic formula (example 2) (video) Worked example: quadratic formula (negative coefficients) (video)	Khan: Solve quadratic equations with the quadratic formula (practice) and Quadratic formula worksheet
Tuesday: Quadratic Formula (Day 2)	Live Instruction: Connections to solving by factoring (if appropriate) and completing the square.	
Wednesday: The Discriminant	Khan Academy: Using the quadratic formula: number of solutions (video)	Khan Academy: Number of solutions of quadratic equations Algebra (practice)

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Thursday: The Discriminant (Day 2)	Live Instruction: Review of discriminant to determine number and type of solutions, discriminant to determine whether or not a quadratic expression is factorable	
Friday: Assessment	Check-in and review session	Worksheet assessment

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

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

- Solve quadratic equations using the quadratic formula.
- Find the discriminant and explain what information it gives.

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