

Grade 9

Distance Learning Module #8: Week of: May 26th – May 29th

Completing the square

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

Targeted Goals from Stage 1: Desired Results

Content Knowledge: Completing the square is a useful strategy in many mathematical contexts - in Algebra I, we can use to find solutions to quadratic equations that are unfactorable. We can also use it to convert a quadratic equation from standard to vertex form.

Vocabulary: completing the square

Skills: completing the square to solve quadratic equations, completing the square of a quadratic equation to find the max or min of the function (vertex)

Expectation:

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Monday: No School (Memorial Day)		
Tuesday: Introduction to completing the square	Live instructional session: Introduction to completing the square	Completing the square practice worksheet
Wednesday: Introduction to solving quadratic equations by completing the square	Khan Academy: Worked example: Solving equations by completing the square (video)	Khan Academy: Completing the square (intro) (practice) Solving quadratics by completing the square (article)
Thursday: Solving equations by completing the square	Live instructional session: Solve quadratic equations by completing the square (including no solution)	Thursday Solving Quadratic Equations By Completing the Square.pdf : Do #3-8, 11, 14, 24

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Friday: Convert to vertex form by completing the square	Live instructional session: Converting a quadratic function to vertex form by completing the square	Completing the square to convert to vertex form practice worksheet

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

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

- Find the constant term of a perfect square trinomial.
- Solve a quadratic equation by completing the square.
- Convert a quadratic function from standard to vertex form by completing the square.

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