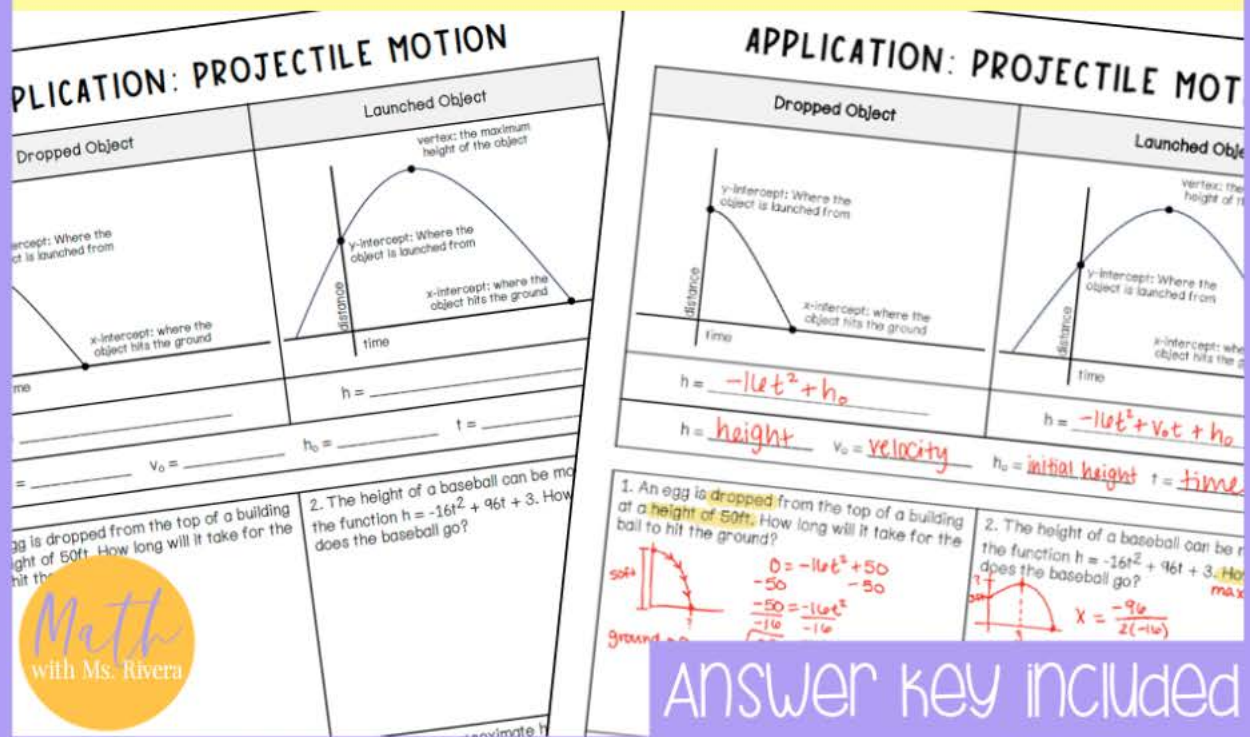
keep scrolling to get a sneak peak!

This set of guided notes will walk Algebra 2 students through applications of quadratic equations: projectile motion.
All you need to do is print & make copies for your students!

PROJECTILE MOTION

Algebra 2 Guided Notes



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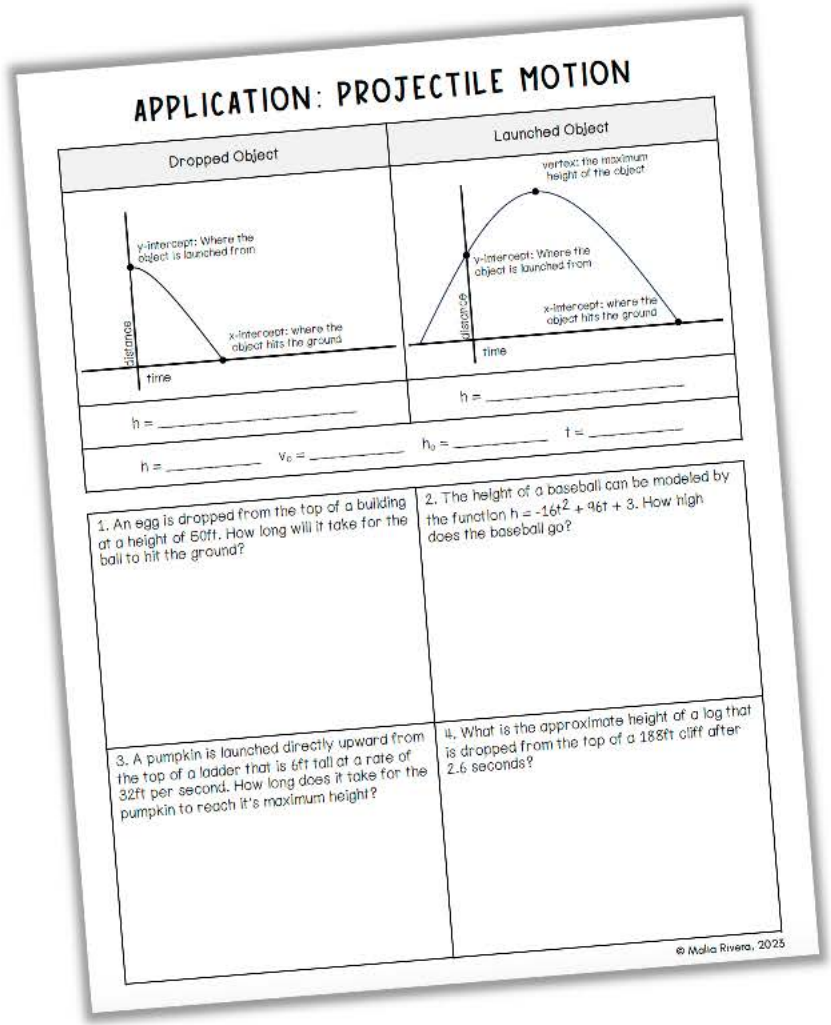
why do you need this?

- It's simple and done-for-you! Just print and make copies!
- Students can work on essential Algebra 2 skills.
- Aligns to CCSS, TEKs, and VA SOLs!
- Suggested and detailed answer keys are included for you!

Algebra 2 Guided Notes
Projectile Motion



APPLICATION: PROJECTILE MOTION

Dropped Object	Launched Object
y-intercept: Where the object is launched from x-intercept: where the object hits the ground distance time	vertex: the maximum height of the object y-intercept: Where the object is launched from x-intercept: where the object hits the ground distance time
$h =$ _____	$h =$ _____
$h =$ _____ $v_0 =$ _____	$h_0 =$ _____ $t =$ _____
1. An egg is dropped from the top of a building at a height of 80ft. How long will it take for the ball to hit the ground?	2. The height of a baseball can be modeled by the function $h = -16t^2 + 96t + 3$. How high does the baseball go?
3. A pumpkin is launched directly upward from the top of a ladder that is 6ft tall at a rate of 32ft per second. How long does it take for the pumpkin to reach it's maximum height?	4. What is the approximate height of a log that is dropped from the top of a 188ft cliff after 2.6 seconds?

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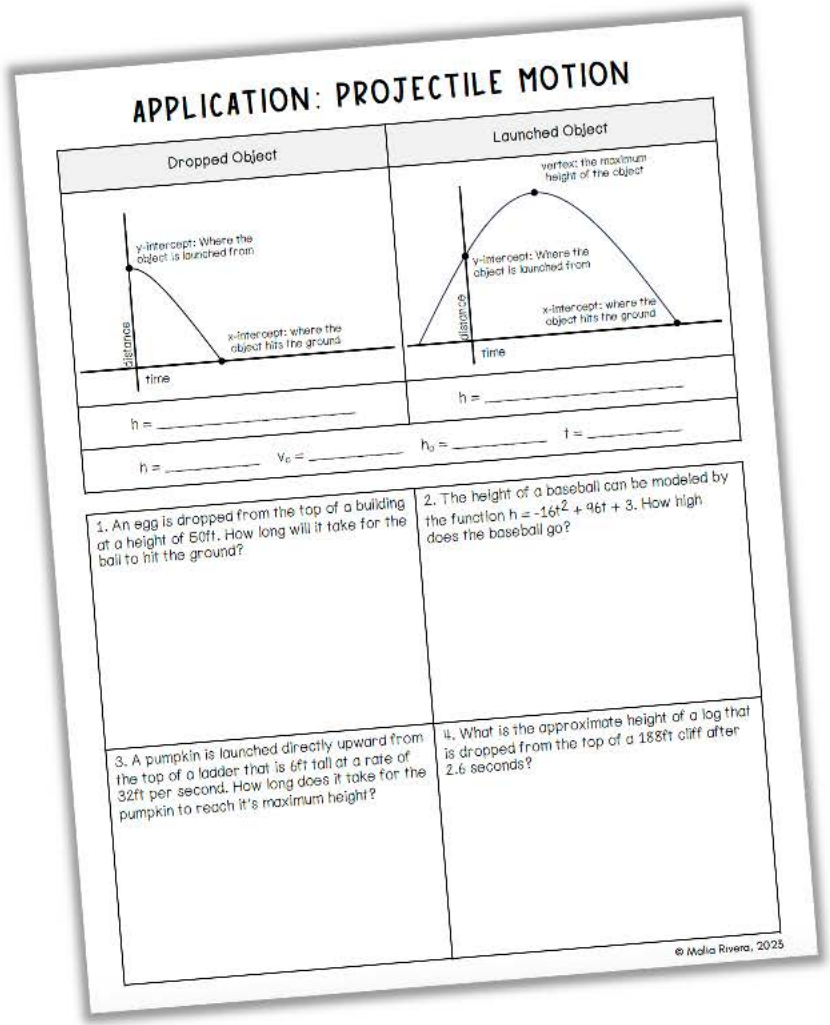
Algebra 2 Guided Notes: Projectile Motion *includes*:



APPLICATION: PROJECTILE MOTION

Dropped Object	Launched Object
y-intercept: Where the object is launched from x-intercept: where the object hits the ground distance time	vertex: the maximum height of the object y-intercept: Where the object is launched from x-intercept: where the object hits the ground distance time
h = _____	h = _____

h = _____ v_0 = _____ h_0 = _____ t = _____

1. An egg is dropped from the top of a building at a height of 50ft. How long will it take for the ball to hit the ground?

2. The height of a baseball can be modeled by the function $h = -16t^2 + 96t + 3$. How high does the baseball go?

3. A pumpkin is launched directly upward from the top of a ladder that is 6ft tall at a rate of 32ft per second. How long does it take for the pumpkin to reach it's maximum height?

4. What is the approximate height of a log that is dropped from the top of a 188ft cliff after 2.6 seconds?

- ✅ 1 page of guided notes
- ✅ Modeling Projectile Motion
- ✅ Calculating Various Pieces of Information of the Projectile Motion Equations
- ✅ Writing Projectile Motion Equations and Solving

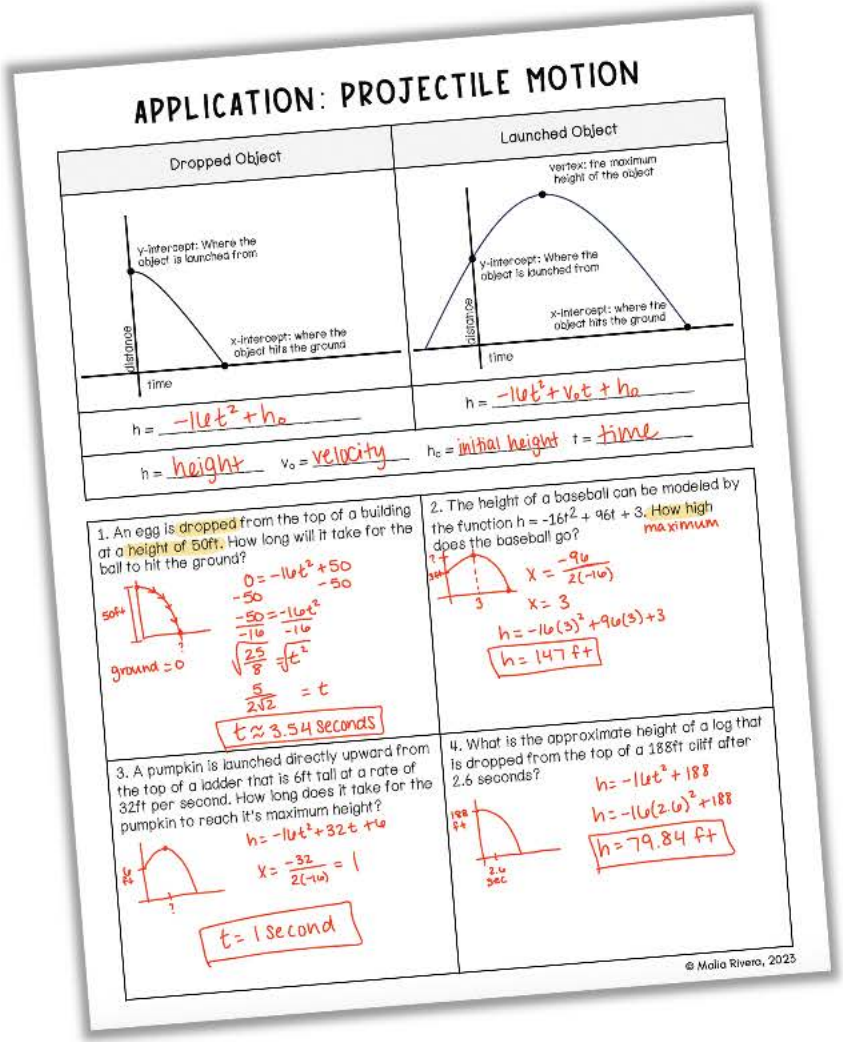
Algebra 2 Guided Notes: Projectile Motion *includes*:

✅ Detailed answer keys

CCSS: HSA-REI.B.4

TEKS: A2.4.F

VA SOLs: EI.AII.3.b



APPLICATION: PROJECTILE MOTION

Dropped Object	Launched Object
$h = -16t^2 + h_0$	$h = -16t^2 + v_0t + h_0$
h = height v_0 = velocity	h_0 = initial height t = time

1. An egg is dropped from the top of a building at a height of 50ft. How long will it take for the ball to hit the ground?

$0 = -16t^2 + 50$
$-50 \quad -50$
$\frac{-50}{-16} = \frac{-16t^2}{-16}$
$\sqrt{\frac{25}{8}} = \sqrt{t^2}$
$\frac{5}{2\sqrt{2}} = t$

$t \approx 3.54$ seconds

2. The height of a baseball can be modeled by the function $h = -16t^2 + 96t + 3$. How high does the baseball go? maximum

$x = \frac{-96}{2(-16)}$
$x = 3$
$h = -16(3)^2 + 96(3) + 3$
$h = 147$ ft

3. A pumpkin is launched directly upward from the top of a ladder that is 6ft tall at a rate of 32ft per second. How long does it take for the pumpkin to reach it's maximum height?

$h = -16t^2 + 32t + 6$
$x = \frac{-32}{2(-16)} = 1$

$t = 1$ second

4. What is the approximate height of a log that is dropped from the top of a 188ft cliff after 2.6 seconds?

$h = -16t^2 + 188$
$h = -16(2.6)^2 + 188$
$h = 79.84$ ft

Check out what *other teachers* are saying:

★★★★★

"This was great practice for my Algebra II students after I presented the lesson. Next Year, I may use them as notes."

- Vonda B.

★★★★★

"Great resource for what we were currently covering in precalc!"

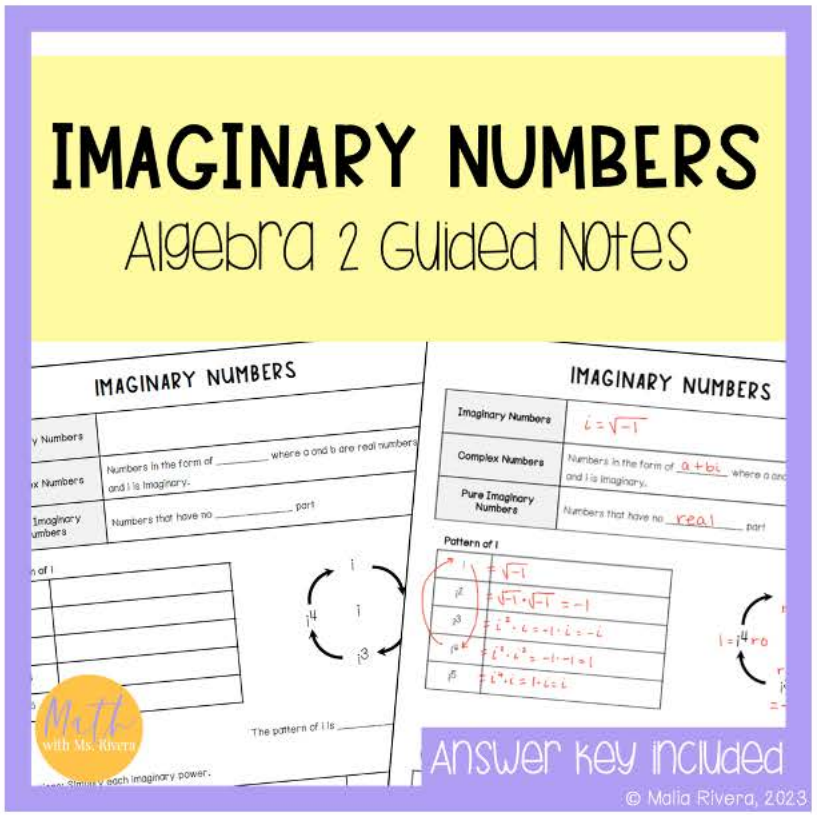
- Megan M.

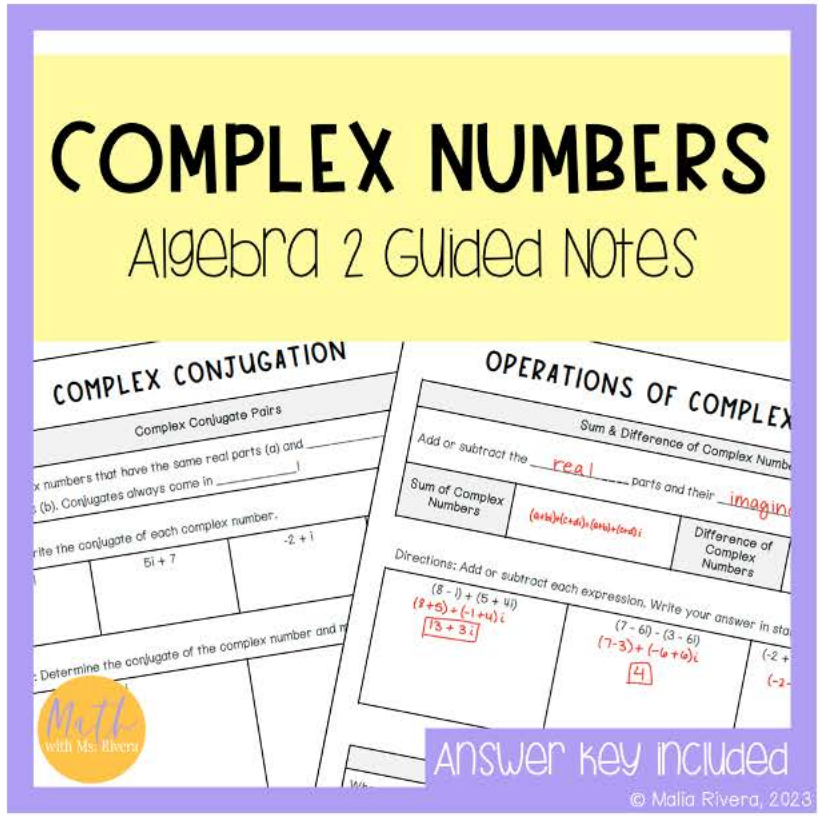
★★★★★

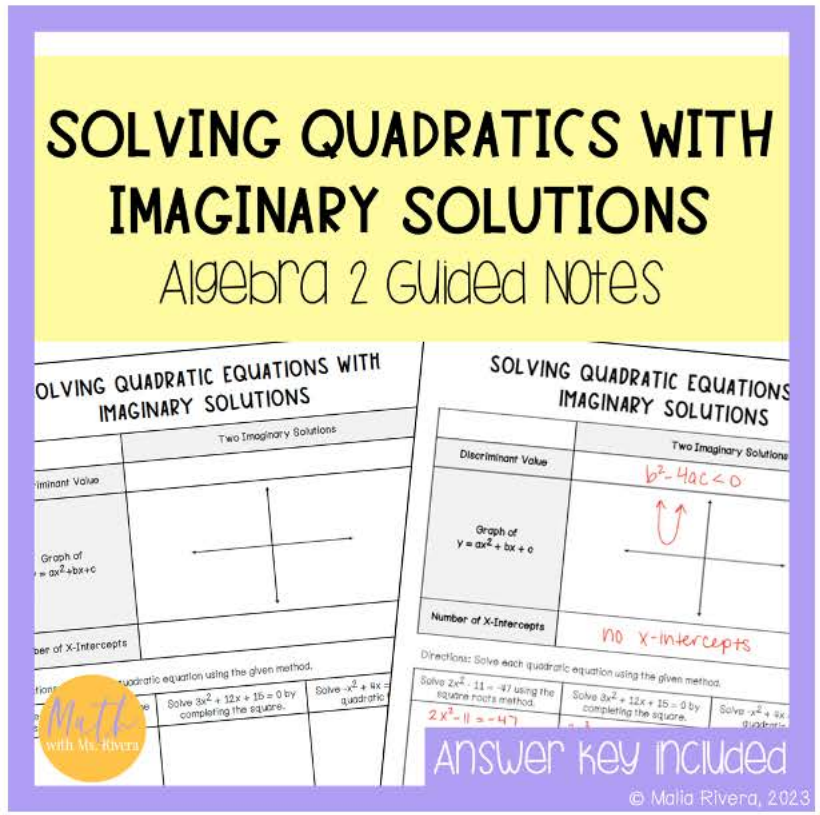
"I used this in conjunction with another document, but this would have worked fine on its own. The students found it much easier to understand the concept using these guided notes."

- Cheryl W.

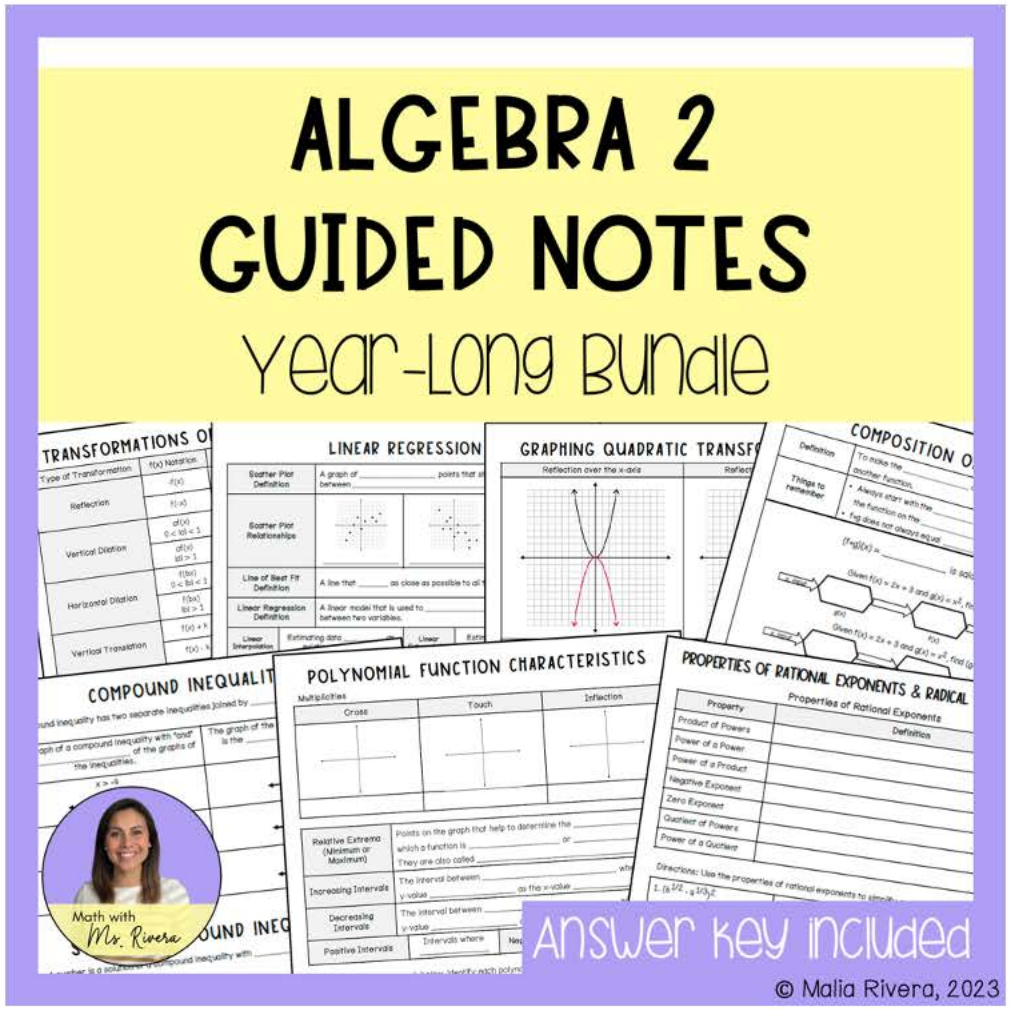
You may also *enjoy* ...







Check out the *year-long bundle*!



hey there!

My name is Malia and I'm passionate about making learning and practicing math fun. I love creating engaging math resources for my students and I hope your students enjoy these Projectile Motion guided notes for Algebra 2 that can be used all year long!

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