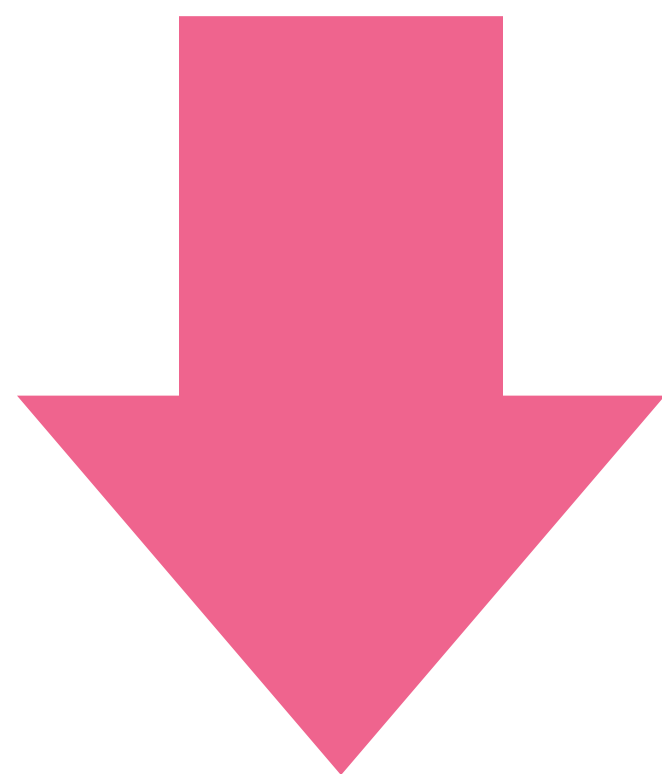


This is the Ultimate BIG Bundle For Conic Sections.

All new completely-editable bundle of notes, practice and more!

Take a
look
inside!

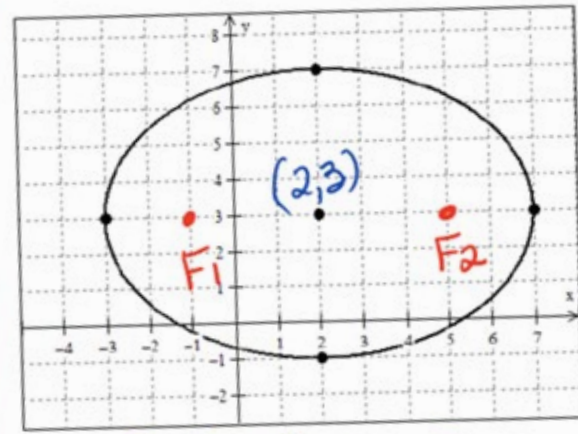


Algebra 2 Honors

Conic Sections

Working Backwards from a Graph

EX #6: Use the sketch of the ellipse to complete the chart:



$a=5$ $b=4$ $c=3$

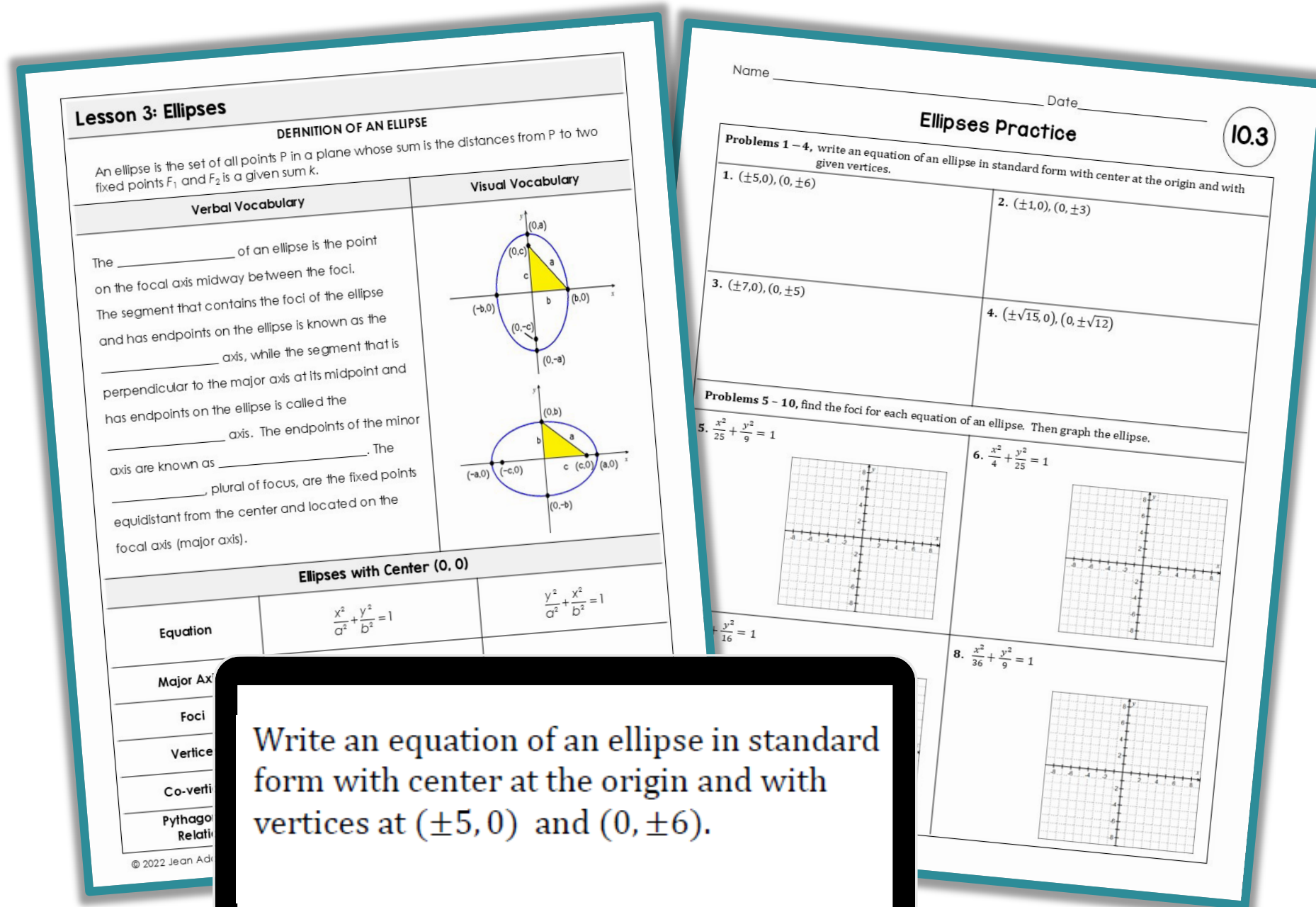
Center:	$(2, 3)$
Major axis:	horizontal
Major Vertices	$(-3, 3)$ $(7, 3)$
Minor Vertices	$(2, -1)$ $(2, 7)$
Foci:	$(-1, 3)$ $(5, 3)$
Standard Form:	$\frac{(x-2)^2}{25} + \frac{(y-3)^2}{16} = 1$

BIG Bundle

10

Completely Editable

WHAT IS INCLUDED?



Editable Guided Student Notes, Practice sets, Daily Quizzes and Warm-Ups



Google Slides for Presentation



Video lessons



End-Unit Review Assignment



Full solution sets



Scope, Sequence, Pacing

Rigorous lessons and practice sets aligned to course standards are here.

Problems 21 – 23, solve.

21. A ball is bounced and reaches heights of 15 inches, 9 inches, and 5.4 inches on the first three bounces.

A. If the ball started at a height of 25 inches, write a geometric series for the distances the ball travels from its starting height in a downward direction.

B. Write a geometric series for the distances the ball travels after its first bounce and the distances the ball travels before it comes to a rest?

Lesson 9.4: Geometric Series

Vocabulary	Example:
The sum of the terms in a geometric sequence is known as a _____.	The series $2.5 + 5 + 10 + 20 + 40$ corresponds to the sequence 2.5, 5, 10, 20, 40. The sum of the series is 77.5.
An infinite series $a_1 + a_2 + \dots + a_n + \dots$ is said to _____ if the sum $a_1 + a_2 + \dots + a_n$ gets closer and closer to a real number as n increases.	
An infinite series will _____ if it does not converge.	

Sums of Geometric Series Formula

When a_1 is the first term, r is the common ratio, $r \neq 1$, and n is the number of terms

Sum of a Finite Geometric Sequence with ratio $r \neq 1$	$S_n = a_1 \left(\frac{1-r^n}{1-r} \right)$
Alternate Form of the Finite Formula	$S_n = \frac{a_1 - a_1 \cdot r^n}{1-r}$
Sum of an Infinite Geometric Series if $ r < 1$	$S = \frac{a_1}{1-r}$

NOTE: An infinite geometric series with $|r| \geq 1$ does not have a finite sum. The series is said to **diverge**.

EX #1: What do you need to find the sum of the first 8 terms in the series $3 + 6 + 12 + 24 + \dots$?

9.4 Geometric Series Form A

Name _____ Date _____ Period _____

1. Find the sum of the geometric series.

$$\sum_{k=1}^8 (2^k)$$

2. Evaluate the series for the first 20 terms

$$15 + 12 + 9.6 + \dots$$

3. Evaluate the infinite geometric series.

$$1.1 + 0.11 + 0.011 + \dots$$

Grade: _____

9.4 Geometric Series Form B

Name _____ Date _____ Period _____

1. Find the sum of the geometric series.

$$\sum_{k=1}^5 (3^k)$$

2. Evaluate the series for the first 20 terms

$$6.4 + 8 + 10 + \dots$$

3. Evaluate the infinite geometric series.

$$3 + 2 + \frac{4}{3} + \frac{8}{9} + \dots$$

Grade: _____



Where do you find extra time to write guided notes and practice sets?



Is your class instruction aligned to the learning objectives and standards for the course?



You need resources that will challenge your students to the necessary rigor for success.

Flamingo Math will help bring balance into your teacher life!

Cover the Standards

Each lesson will provide you and your students with the skills and learning objectives necessary for success in the Algebra 2 Honors Environment.

- ❑ You will find an editable scope and sequence document to track the learning objectives for the unit.
- ❑ Each lesson includes Google Slides for your presentation needs.
- ❑ You will also have a **fully-editable version** for every lesson, practice set, daily quiz, warm up, and end unit review assignment.
- ❑ An editable pacing guide for both learning objectives and lesson plans is provided.

ALGEBRA 2 CURRICULUM	
Scope and Sequence	
Unit 10: Conic Sections	
Lesson	Skills & Learning Objectives
[10.1] Parabolas	❑ Find the equation, focus, and directrix of a parabola ❑ Write, analyze and graph the equation of a parabola, including completing the square ❑ Understand the impact of parameters on graphs of parabolas
[10.2] Circles	❑ Write, analyze and graph the equation of a circle ❑ Find the center and radius of a circle on a coordinate plane and use them to graph the circle ❑ Write standard form equations for a circle by completing the square ❑ Solve real-world problems involving circles
[10.3] Ellipses	❑ Write, analyze and graph the equation of an ellipse ❑ Find the equation, foci, major and minor vertices of an ellipse, as well as completing the square ❑ Solve real-world problems involving ellipses
[10.4] Hyperbola	❑ Write, analyze and graph the equation of a hyperbola ❑ Find the equation, foci, major and minor vertices and asymptotes for hyperbolas ❑ Complete the square to write standard form of a hyperbola ❑ Solve real-world problems involving hyperbolas

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Cooperative Activities and Assessments Keep Teachers Happy!

Sequences & Series

TASK CARDS

3. Find the 15th term of the sequence where $a_n = n^2 - 2$.

$$a_{15} = 15^2 - 2 = 225 - 2 = 223$$

5. Find the explicit rule and find the first five terms of the sequence where $a_1 = 7$ and $d = -1.2$.

$$a_n = 7 + (n-1)(-1.2)$$
$$= 7 - 1.2n + 1.2$$
$$= 8.2 - 1.2n$$

8, 4.6, 3.4, ...

5. Write the explicit rule and find the first five terms of the sequence where $a_1 = 7$ and $d = -1.2$.

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Stations Activity

1. Design an ascending arithmetic sequence with the third term -4 and a difference greater than 1.

4. Design a descending geometric sequence with the third term -4 and the initial value not equal to ± 1 .

6. Design an infinite geometric series whose sum is equal to $\frac{1}{2}$.

5. Design a geometric series whose terms are both positive and negative where the sum of the first ten terms is positive.

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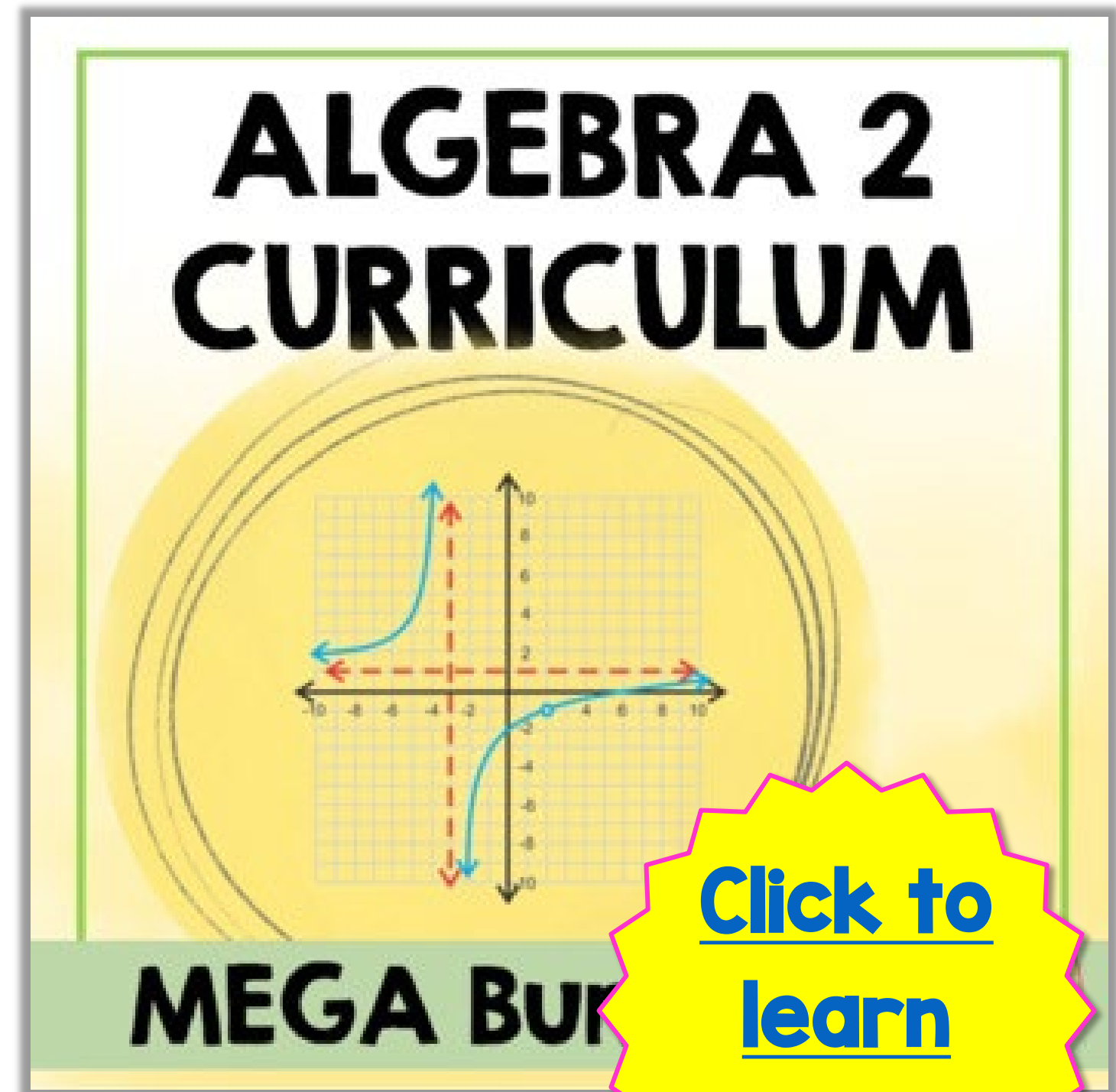
Sequences & Series

Full Year Curriculum

The MEGA Bundle provides thirteen units for you to design the perfect Algebra 2 Honors course for your state and district standards; including activities, video lessons, presentation tools, and so much more.

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- Let Flamingo Math help you teach!

“Flamingo Math always produces quality work! I am so grateful for her resources to guide me as I teach Algebra 2 this upcoming year. *Christy S.*”



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