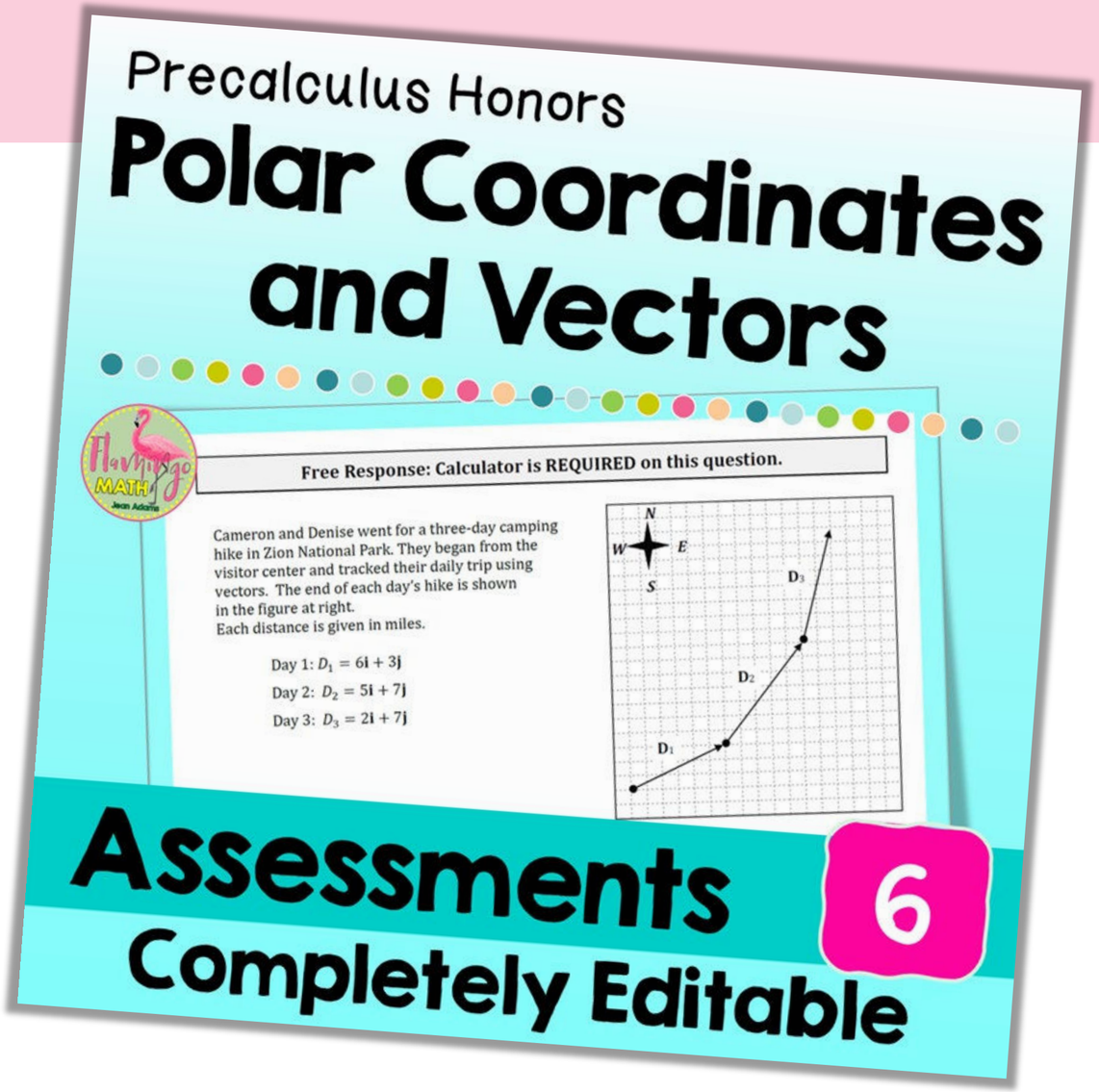
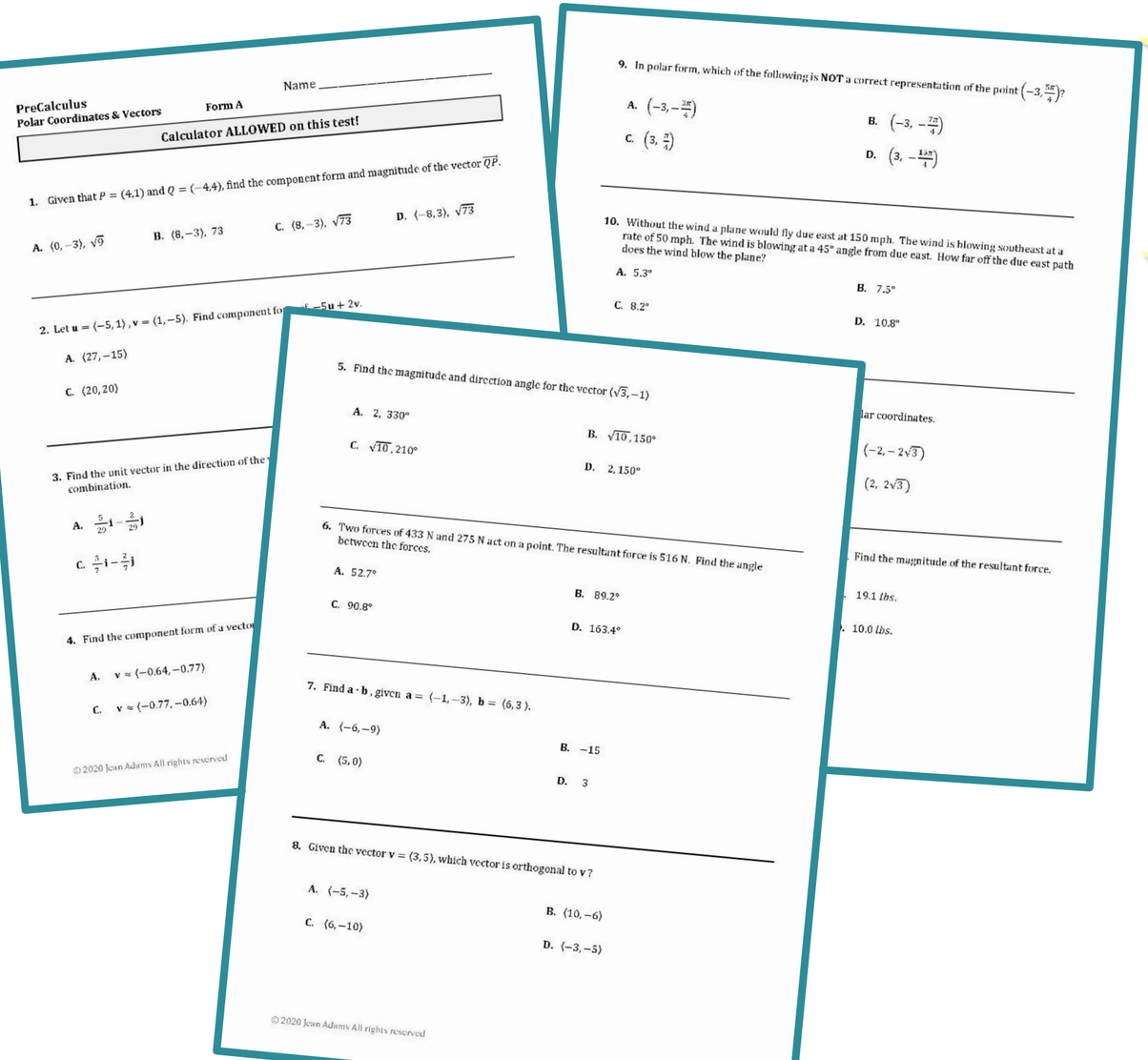
Are you searching for Precalculus Honors Assessments?

All new editable assessments and so much more to save you time

Take a look inside!



Rigorous assessments aligned to course standards is here.



PreCalculus
Polar Coordinates & Vectors
Form A

Name _____

Calculator ALLOWED on this test!

1. Given that $P = (4,1)$ and $Q = (-4,4)$, find the component form and magnitude of the vector $\overrightarrow{QP}$.

A. $\langle 0, -3 \rangle$, $\sqrt{9}$ B. $\langle 8, -3 \rangle$, 73 C. $\langle 8, -3 \rangle$, $\sqrt{73}$ D. $\langle -8, 3 \rangle$, $\sqrt{73}$

2. Let $\mathbf{u} = \langle -5, 1 \rangle$, $\mathbf{v} = \langle 1, -5 \rangle$. Find component fo $-5\mathbf{u} + 2\mathbf{v}$.

A. $\langle 27, -15 \rangle$

C. $\langle 20, 20 \rangle$

3. Find the unit vector in the direction of the combination.

A. $\frac{5}{29}\mathbf{i} - \frac{2}{29}\mathbf{j}$

C. $\frac{5}{7}\mathbf{i} - \frac{2}{7}\mathbf{j}$

4. Find the component form of a vecto

A. $\mathbf{v} \approx \langle -0.64, -0.77 \rangle$

C. $\mathbf{v} \approx \langle -0.77, -0.64 \rangle$

© 2020 Jean Adams All rights reserved

9. In polar form, which of the following is **NOT** a correct representation of the point $\left(-3, \frac{5\pi}{4}\right)$?

A. $\left(-3, -\frac{3\pi}{4}\right)$ B. $\left(-3, -\frac{7\pi}{4}\right)$

C. $\left(3, \frac{\pi}{4}\right)$ D. $\left(3, -\frac{15\pi}{4}\right)$

10. Without the wind a plane would fly due east at 150 mph. The wind is blowing southeast at a rate of 50 mph. The wind is blowing at a 45° angle from due east. How far off the due east path does the wind blow the plane?

A. 5.3° B. 7.5°

C. 8.2° D. 10.8°

lar coordinates.

$(-2, -2\sqrt{3})$

$(2, 2\sqrt{3})$

Find the magnitude of the resultant force.

19.1 *lbs.*

10.0 *lbs.*

5. Find the magnitude and direction angle for the vector $\langle \sqrt{3}, -1 \rangle$

A. 2, 330° B. $\sqrt{10}$, 150°

C. $\sqrt{10}$, 210° D. 2, 150°

6. Two forces of 433 N and 275 N act on a point. The resultant force is 516 N. Find the angle between the forces.

A. 52.7° B. 89.2°

C. 90.8° D. 163.4°

7. Find $\mathbf{a} \cdot \mathbf{b}$, given $\mathbf{a} = \langle -1, -3 \rangle$, $\mathbf{b} = \langle 6, 3 \rangle$.

A. $\langle -6, -9 \rangle$ B. -15

C. $\langle 5, 0 \rangle$ D. 3

8. Given the vector $\mathbf{v} = \langle 3, 5 \rangle$, which vector is orthogonal to $\mathbf{v}$?

A. $\langle -5, -3 \rangle$ B. $\langle 10, -6 \rangle$

C. $\langle 6, -10 \rangle$ D. $\langle -3, -5 \rangle$

© 2020 Jean Adams All rights reserved

Where do you find extra time to write rigorous Precalculus assessments?

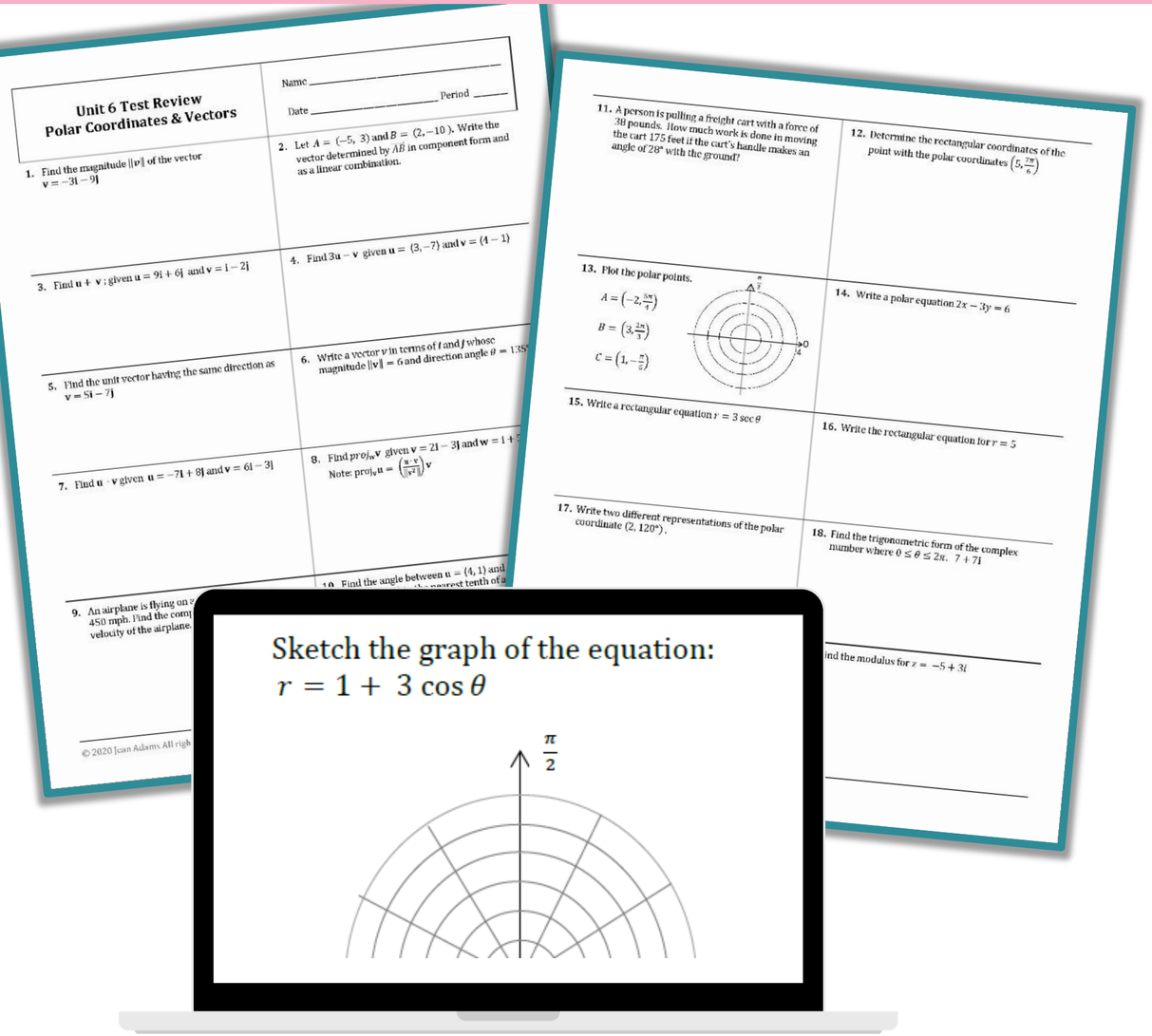
Is your class instruction aligned to the course learning objectives and topics?

You need assessments that will challenge your students to the rigor of Precalculus Honors for success.

Flamingo Math will be your silent testing partner!

Flamingo Math by Jean Adams

WHAT IS INCLUDED?



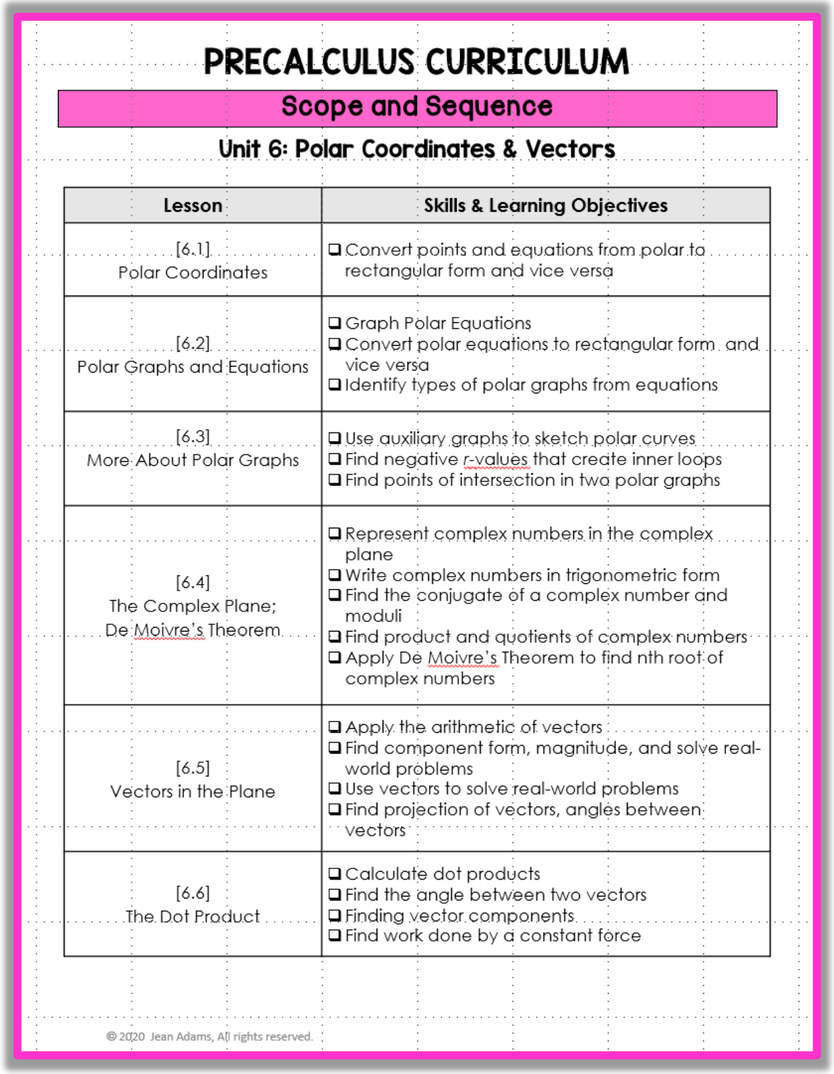
- Editable Review assignments
- Editable assessments
- Full solution sets
- Extra Practice Topics
- Scope and Sequence

Flamingo Math by Jean Adams

Cover the Standards

Each lesson will provide you and your students with the skills and learning objectives necessary for success in the Precalculus 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 assessment.
- ❑ An editable pacing guide for both learning objectives and lesson plans is provided.



PRECALCULUS CURRICULUM

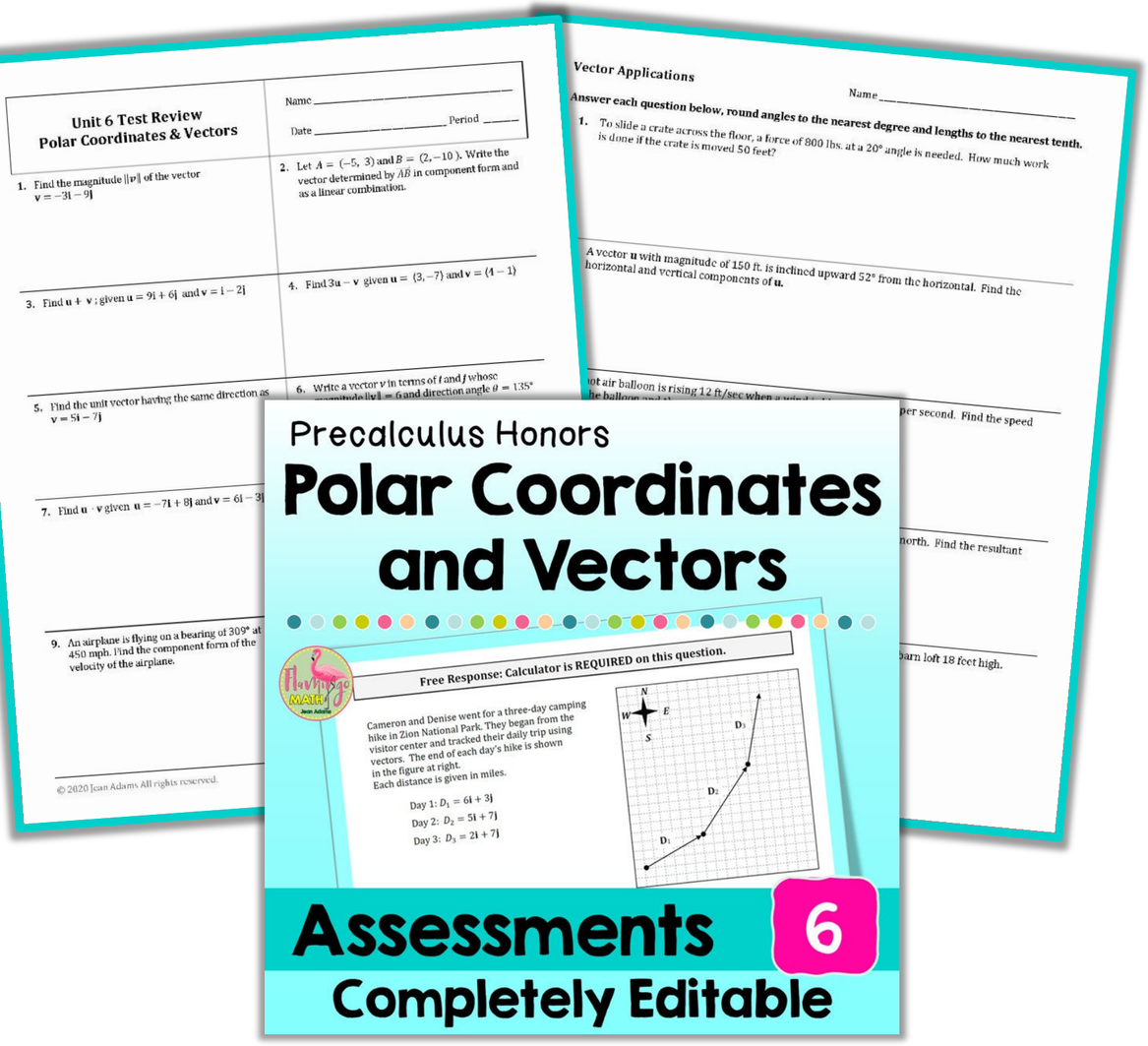
Scope and Sequence

Unit 6: Polar Coordinates & Vectors

Lesson	Skills & Learning Objectives
[6.1] Polar Coordinates	❑ Convert points and equations from polar to rectangular form and vice versa
[6.2] Polar Graphs and Equations	❑ Graph Polar Equations ❑ Convert polar equations to rectangular form and vice versa ❑ Identify types of polar graphs from equations
[6.3] More About Polar Graphs	❑ Use auxiliary graphs to sketch polar curves ❑ Find negative r-values that create inner loops ❑ Find points of intersection in two polar graphs
[6.4] The Complex Plane; De Moivre's Theorem	❑ Represent complex numbers in the complex plane ❑ Write complex numbers in trigonometric form ❑ Find the conjugate of a complex number and moduli ❑ Find product and quotients of complex numbers ❑ Apply De Moivre's Theorem to find nth root of complex numbers
[6.5] Vectors in the Plane	❑ Apply the arithmetic of vectors ❑ Find component form, magnitude, and solve real-world problems ❑ Use vectors to solve real-world problems ❑ Find projection of vectors, angles between vectors
[6.6] The Dot Product	❑ Calculate dot products ❑ Find the angle between two vectors ❑ Finding vector components ❑ Find work done by a constant force

© 2020 Jean Adams, All rights reserved.

Reviews from Happy Teachers!



> This resource was an excellent addition for my Precalculus Honors students. The mix of free response questions and the multiple choice is exactly what I was looking for. *Roberto F.*

> Great resource for Honors PreCalc kids!! It definitely made them dig deeper into functions, which is what they needed. *Vickie P.*

> Jean has great, thoughtful assessments. Excited to use in Precalculus this year! *Christina N.*

Full Year Curriculum

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

- Save over 20% when you purchase the full year curriculum bundle.
- Let Flamingo Math help you teach!

> I have the AP Calculus curriculum and it is awesome! I am so excited to use this for my Pre-Calculus classes! I know the students entering AP Calculus will be better prepared because of using this curriculum. Thank you very much! *Alicia B.*

