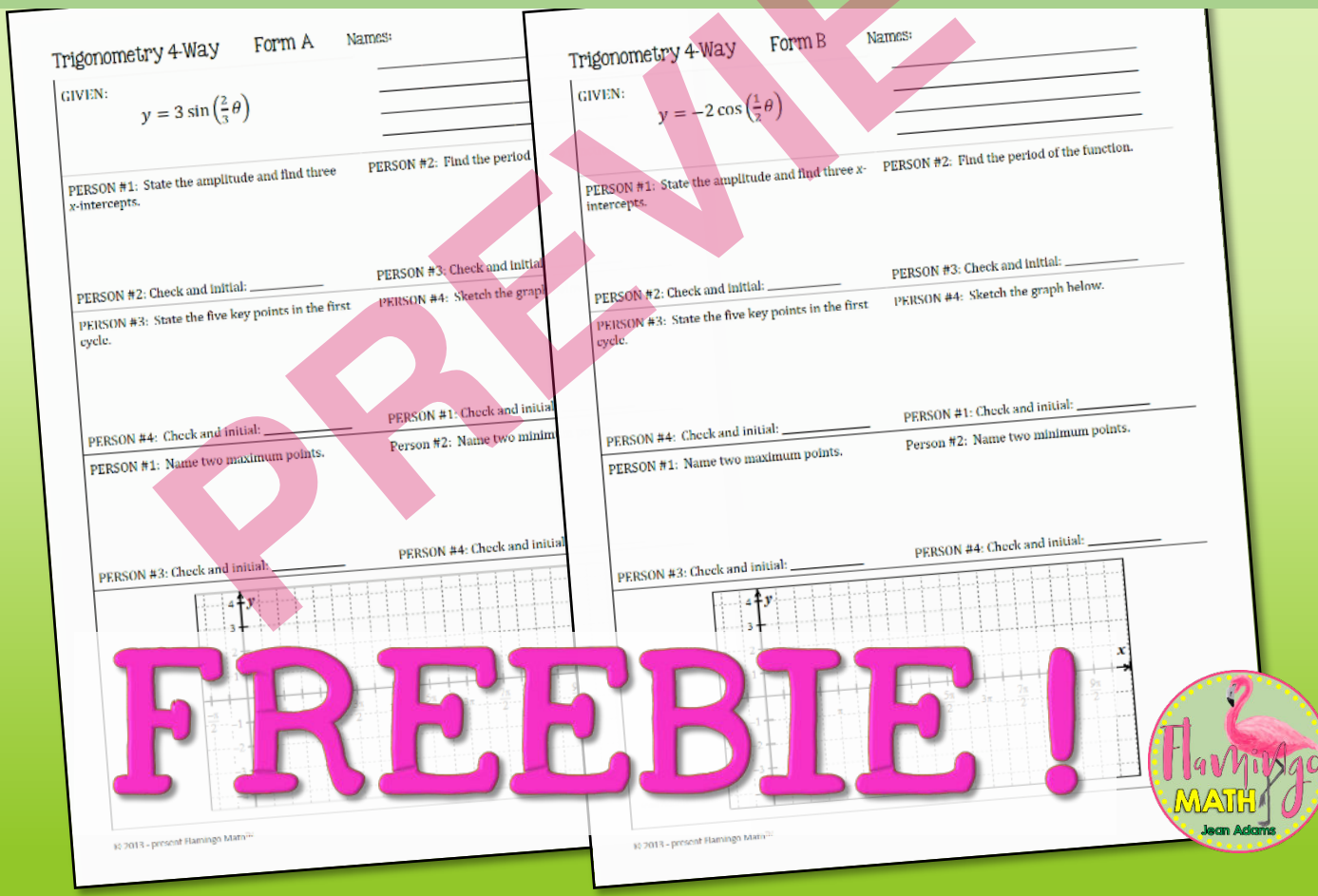
Trigonometry

4-Way Activity

Graphic • Numeric • Algebraic • Words



PREVIEW

FREEBIE !

Flamingo MATH
Jean Adams

Trigonometry 4-Way Activity

Objective: In this 4-Way Activity your **Algebra 2** or **PreCalculus** students will work cooperatively in groups of four to analyze a given trigonometric function. Tasks include finding amplitude, period, x-intercepts, key points for graphing. When completed, students are given the task to graph the function.

Preparation: Copy a form for each group of students. There are two different forms for a group.

Activity: Place students in groups of 4. They should decide who is person #1, #2, #3, and #4. Or have them ranked according to age, birth month, etc. Students work cooperatively to solve their individual prompt to complete the activity. Just as the game of Four Square, students "bounce" through the squares until the group has completed their assigned prompt.

What is GNAW and the Rule of Four?

The "Rule of Four" or G.N.A.W. Approach is a method of thinking about mathematics in order to make connections through multiple representations of our mathematical thinking. Students should be able to represent mathematics in graphic, numeric, algebraic, and verbal formats. G.N.A.W.

Why should you use the GNAW approach?

By implementing this process into your classes, students will gain a deeper understanding of the mathematics. The Rule of Four helps students connect and validate concepts and techniques.

How can you use the Rule of Four?

Teachers can model this approach during instructional time to set the "tone" for expected thinking and reasoning. Then, give your students many chances to practice the techniques. It is also important that students learn to make connections between the different representations.

PREVIEW

Please visit my store for more engaging task card activities.

Trigonometry 4-Way Form A

Names: _____

GIVEN:

$$y = 3\sin\left(\frac{2}{3}\theta\right)$$

PERSON #1: State the amplitude and find three x-intercepts.

PERSON #2: Check and initial: _____

PERSON #2: Find the period of the function.

PERSON #3: Check and initial: _____

PERSON #3: State the five key points in the first cycle.

PERSON #4: Check and initial: _____

PERSON #4: Sketch the graph below.

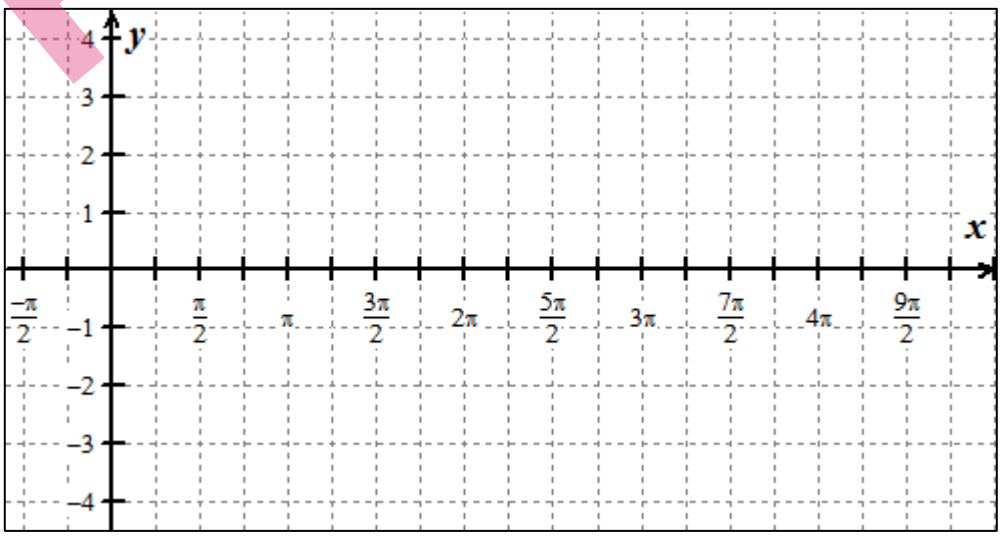
PERSON #1: Check and initial: _____

PERSON #1: Name two maximum points.

PERSON #3: Check and initial: _____

Person #2: Name two minimum points.

PERSON #4: Check and initial: _____



PREVIEW

© 2022 Jean Adams All Rights Reserved

Trigonometry 4-Way Form B

Names: _____

GIVEN:

$$y = -2\cos\left(\frac{1}{2}\theta\right)$$

PERSON #1: State the amplitude and find three x-intercepts.

PERSON #2: Check and initial: _____

PERSON #2: Find the period of the function.

PERSON #3: Check and initial: _____

PERSON #3: State the five key points in the first cycle.

PERSON #4: Check and initial: _____

PERSON #4: Sketch the graph below.

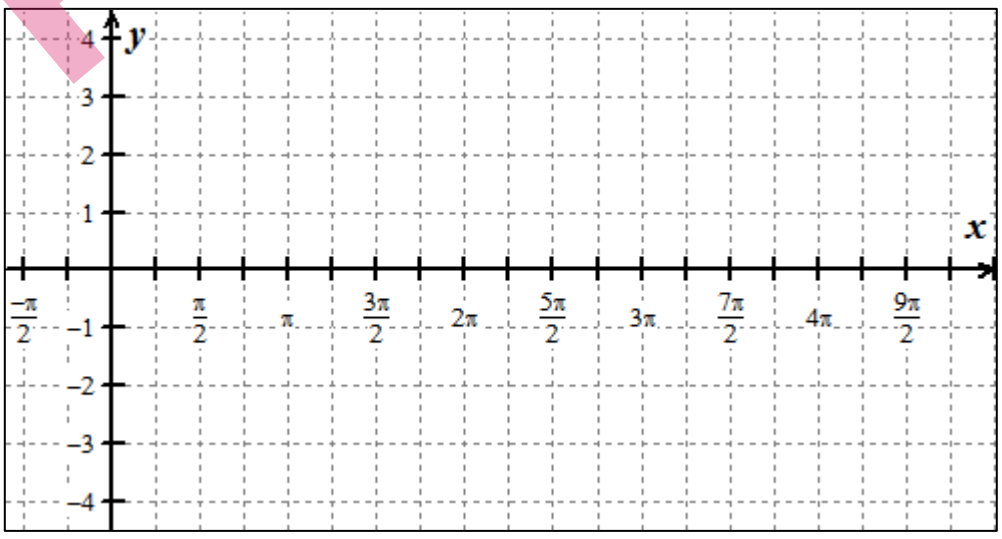
PERSON #1: Check and initial: _____

PERSON #1: Name two maximum points.

PERSON #3: Check and initial: _____

Person #2: Name two minimum points.

PERSON #4: Check and initial: _____



PREVIEW

© 2022 Jean Adams All Rights Reserved