

The Unit Circle and Trigonometric Graphs Web Activities

http://www.batesville.k12.in.us/Physics/CalcNet/Trig_Review/Trig_Review.html

Take the first TWO quizlets only!

Quizlet #1: Definitions of Trigonometric Functions:

12 questions on definitions of trig functions required. Record your quiz summary data below:

Trial #1 (required):

Number Correct: _____

Number Missed: _____

Number Skipped: _____

Percent Correct: _____

Teacher/Monitor/Parent
Verification of Results:

Initial if results are accurate

Trial #2 (optional):

Number Correct: _____

Number Missed: _____

Number Skipped: _____

Percent Correct: _____

Teacher/Monitor/Parent
Verification of Results:

Initial if results are accurate

Quizlet #2: Values of Functions in the First Quadrant:

30 questions on evaluating trig functions required. Record your quiz summary data below:

Trial #1 (required):

Number Correct: _____

Number Missed: _____

Number Skipped: _____

Percent Correct: _____

Teacher/Monitor/Parent
Verification of Results:

Initial if results are accurate

Trial #2 (optional):

Number Correct: _____

Number Missed: _____

Number Skipped: _____

Percent Correct: _____

Teacher/Monitor/Parent
Verification of Results:

Initial if results are accurate

<http://www.analyzemath.com/TrigGraph/TrigGraph.html>

SCROLL TO NEAR THE BOTTOM OF THE PAGE FOR THE FOLLOWING ACTIVITY!

Quizlet: 10 more questions on graphs of trigonometric functions

- 1 - Click on the button "**click here to start**" and **MAXIMIZE** the window obtained to fullscreen. You should see the answer check boxes at the very bottom when you do this.
- 2 - Click **start** on the main menu.
- 3 - Answer the question by **checking a,b,c or d** in the lower part of the window.
- 4 – Click on the **next** button to go on to the next question.

NOTE: You can review your answers and change them by selecting the desired letter. Once you have finished the entire quiz, press "finish" and you get a table with your answers and the right answers to compare them against. To start the test with another set of questions, press "reset".

Record your number correct and incorrect and write the percentage achieved.

Question Number	Your Answer	Right Answer
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Total Percent Correct	/ 10	%

Teacher/Monitor/Parent
Verification of Results:

Initial if results are accurate

<http://wims.unice.fr/wims/wims.cgi?session=NXC576D488.4&+lang=en&+module=H5%2Fanalysis%2Fcoincsin.en>

[WIMS Home](#) [Work](#) [References](#) [WIMS Help](#)

Coincidence sinus

--- Introduction ---

This is a graphic exercise: it presents to you the graph of a sinusoidal function (either under the form of $A\cos(x+B)$ or under the form of $A\cos(x)+B\sin(x)$), and asks you to find back this function. And you can make several tries, each try giving you a graphical comparison between your reply and the given graph, allowing you to improve your reply.

At the end of the tries, you will be given a score according to the deviation of your best try. And the following configuration parameters allow variation of the style and the difficulty level of the exercise.

Type of function:

1. A $\cos(x + B)$ (easier)
2. A $\cos(x) + B \sin(x)$ (harder)
3. random among the above two.

Difficulty level: Number of tries allowed: Score severity:

Practice estimating and writing equations to fit graphs of the sine and cosine functions.

Within each trial, you have 6 tries to guess the missing values for the graph. The missing values will be in decimal form with four decimal places. You are to practice this exercise on at least 5 graphs and record the following data:

Trial #

1. Your final guess: _____

The exact equation: _____

Your score: _____/10

2. Your final guess: _____

The exact equation: _____

Your score: _____/10

3. Your final guess: _____

The exact equation: _____

Your score: _____/10

4. Your final guess: _____

The exact equation: _____

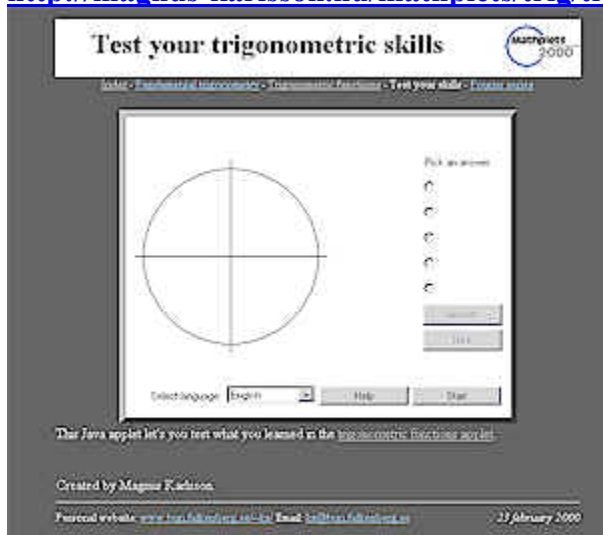
Your score: _____/10

5. Your final guess: _____

The exact equation: _____

Your score: _____/10

<http://magnus-karlsson.nu/mathplets/trig/trigtest.html>



Test your trigonometric skills with this online applet. You are given a set of 10 multiple choice questions about the unit circle. The test is timed (although there is no limit).

You are to complete *at least* two testing sessions and record you scores and time below.

REQUIRED:

Number Correct _____ out of 10. Time: _____

Number Correct _____ out of 10. Time: _____

Optional Extra Trials:

Number Correct _____ out of 10. Time: _____

Number Correct _____ out of 10. Time: _____

Number Correct _____ out of 10. Time: _____

Number Correct _____ out of 10. Time: _____

BONUS awarded for the situations below:

A perfect score of 10 out of 10.

Teacher Verification (Initial): _____

**A perfect score of 10 out of 10 AND
completed in 1 minute or less.**

Teacher Verification (Initial): _____

Optional Sites and Trigonometric Applets to Explore (*If Time Allows*)

<http://www.wou.edu/~burtonl/trig.html>

Unit circle values and the sine and cosine graphs; also includes reference angles.

<http://www.ies.co.jp/math/products/trig/menu.html>

Trigonometric applets that illustrated relationships between the unit circle and the trig graphs. The Sine Function Box, Cosine Function Box, and Tangent Function Box applets are especially good if you are having difficulty evaluating the different functions for their decimal values.

<http://id.mind.net/~zona/mmts/trigonometryRealms/radianDemo1/RadianDemo1.html>

The definition of a radian. Lots of good tidbits reinforcing the points in our class discussions.

http://people.hofstra.edu/faculty/Stefan_Waner/RealWorld/trig/trig1.html

FYI: This is an excellent site for extra practice on modeling real-world situations with trigonometric functions. There are extra examples worked out if you want extra practice problems with detailed explanation, but it is not an interactive website.

Student Scoring Guide

Rating 4-3-2-1-0	Web Activity Task	Performance Description for Each Task
	Definition of Trigonometric Functions 12 Question Quiz Applet	Exemplary goal is at least a 90%. Accomplished goal is at least an 80%. Developing goal is at least a 70%. Beginning goal is at least a 60%.
	Values of Functions in the First Quadrant 30 Question Quiz Applet	Exemplary goal is at least a 90%. Accomplished goal is at least an 80%. Developing goal is at least a 70%. Beginning goal is at least a 60%.
	Trigonometric Graphs 10 Question Multiple Choice Quiz	Exemplary goal is at least a 90%. Accomplished goal is at least an 80%. Developing goal is at least a 70%. Beginning goal is at least a 60%.
	Recognizing Trig Functions and Graphs	A personal reflection provides detailed insight to your particular strengths in identifying trig functions and their graphs. Supporting details should include level of difficulty, speed, accuracy, and also which direction you prefer: <i>function-to-graph</i> or <i>graph-to-function</i> .
	Coincidence Sinus: Fitting Algebraic Equations to Graphs	Completion of five different trials to create an equation that matches the given graph. No minimum requirements, although a general improvement in scores from the first trial to the fifth trial should be demonstrated.
	Test Your Trigonometric Skills	Exemplary goal is at least a 90% by the final trial. Accomplished goal is at least an 80% by the final trial. Developing goal is at least a 70% by the final trial. Beginning goal is at least a 60% by the final trial.
	Mathematical Focus: On-task and Use of Time	You are constantly on-task and practicing to improve your trigonometric skills and understanding during the computer lab time, or you complete this web activity on your own time due to class absences.