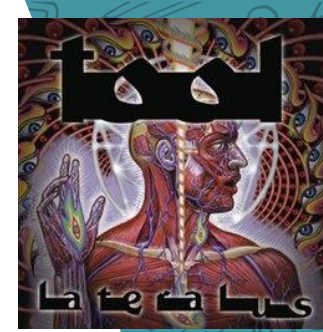


Innovation Academy

Curriculum Night
Mr. Hartley
Enhanced Advanced Algebra
hartleyt@fultonschools.org

About me!

- 6th year at IA and 6th of teaching!
- Graduated from GSU with a Bachelors in Mathematics and Master's in Teaching
- Coach for the Marvel Rivals eSports team
- Over the Summer:
 - Got married to my best friend, Elena



What is Enhanced Advanced Algebra?

- Prerequisite to Calculus
 - Rate of Change
 - Graph analysis
 - Polynomial and Rational (Unit 1)
 - Exponential/Logarithms (Unit 2)
 - Sinusoidal and Polar (Unit 3)
 - Parametric (Unit 4)
 - Unit 4 is not on Exam
 - Unit 1 and Unit 2 are topics expanded from Algebra 2
- Will cover Algebra 2 concepts as we go on
 - Piecewise functions
 - Reciprocals
 - Factoring and Solving
 - Intervals, Domain, and Range

AP Precalculus Exam:

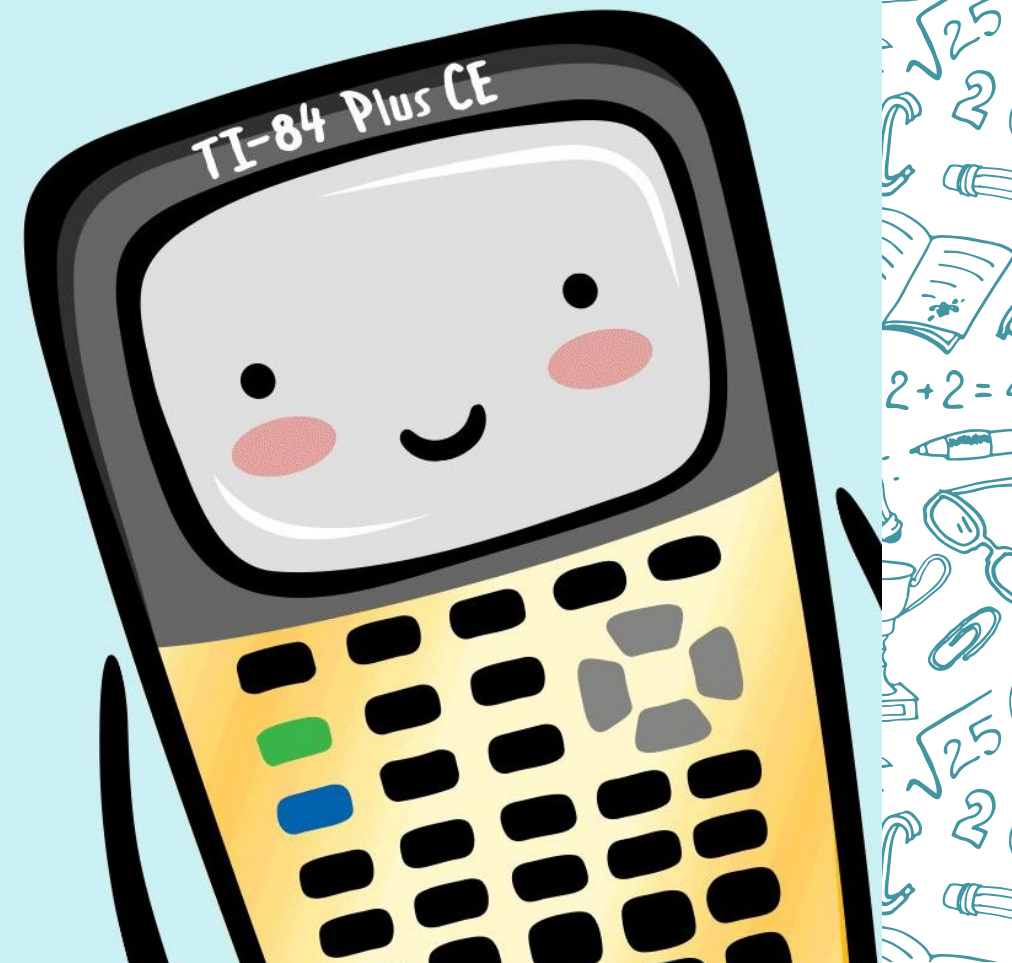
Tuesday, May 11th at 8am

Will consist of non-calculator MCQ, non-calculator FRQ, calculator MCQ, and calculator FRQ



- Major Assessments (Tests) - 55%
- Minor Assessments (Quizzes) - 35%
 - Students who score below a 75 on major assessments should plan to take the recovery test.
- Practice (HW, AP Classroom Practice) - 10%
 - AP Classroom assignments are graded on completion.
 - Daily OneNote practice is also graded on completion
 - MyLab Math assignments are graded on accuracy.
 - Other practice assignments may be assigned throughout the course.

Grading

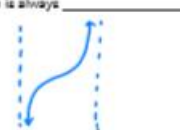


Expectations

- Have prerequisite skills
- Actively participate in class
- Do the work (practice is necessary for success!)
- Ask questions
- A graphing calculator is required for this course; one can be checked out by your student in the eXchange to use for the school year.
- Think critically
- Have fun 😊

Circuit Training Unit 7 Review Name: Key

Directions: Begin in cell #1. Show the work necessary to arrive at your answer. Search for your answer in one of the other cells and mark that cell #2, then work out the new problem. Proceed in this manner until you complete the circuit and arrive back at the first box. You do not need a calculator to complete this circuit.

# <u>1</u> Answer: $\frac{\sqrt{5} + \sqrt{2}}{4}$ Consider the function $f(\theta) = \tan\left(\frac{\pi}{5}\theta\right)$. What is $f\left(\frac{3\pi}{2}\right)$? $f\left(\frac{3\pi}{2}\right) = \tan\left(\frac{3\pi}{2}\right) = -1$	# <u>4</u> Answer: 3 What is the period of $y = \tan\left(\frac{\pi}{3}x\right)$? $\frac{\pi}{(\pi/3)} = 3$
# <u>13</u> Answer: $\frac{\pi}{2}$ Find all zeros of the function $g(x) = 4\cos^2 x - 3$ on the interval $[0, 2\pi]$. $\cos^2 x = \frac{3}{4}$ $\cos x = \pm \frac{\sqrt{3}}{2}$ $x = \pi/6, 5\pi/6, 7\pi/6, 11\pi/6$	# <u>2</u> Answer: -1 The tangent function is always _____ on its domain. ① increasing 2. decreasing 3. concave up 4. concave down 
# <u>16</u> Answer: 2 Ken's distance above the ground (in inches) after t minutes on Barbie's Ferris wheel is given by $h(t) = 3\cos(\pi t) + 4$. What is Ken's maximum height? $4 + 3 = 7$	# <u>17</u> Answer: no solution Given $\csc \omega = \frac{5}{3}$ and $\frac{\pi}{2} \leq \omega \leq \pi$. Find $\sin \omega = \frac{3}{5}$ $\cos \omega = -\frac{4}{5}$ $\tan \omega = -\frac{3}{4}$ $\sec \omega = -\frac{5}{3}$ $\cot \omega = -\frac{4}{3}$ Search for the smallest value. $-4/3$ (most negative) 
# <u>20</u> Answer: $\frac{\pi}{6}, \frac{5\pi}{6}, \frac{3\pi}{2}$ Find an exact value for $\cos \frac{\pi}{12}$. $\cos\left(\frac{\pi}{3} - \frac{\pi}{4}\right) = \cos\left(\frac{\pi}{3}\right)\cos\left(\frac{\pi}{4}\right) + \sin\left(\frac{\pi}{3}\right)\sin\left(\frac{\pi}{4}\right)$ $= \frac{1}{2} \cdot \frac{\sqrt{2}}{2} + \frac{\sqrt{3}}{2} \cdot \frac{\sqrt{2}}{2} = \frac{\sqrt{2}}{4} + \frac{\sqrt{6}}{4}$	# <u>19</u> Answer: 5 Solve $\cos x = \sin(2x)$ for $0 \leq x \leq 2\pi$. $\cos x = 2\sin x \cos x$ $\cos x = 0$ or $\sin x = \frac{1}{2}$ $x = \pi/2, 3\pi/2$ or $x = \pi/6, 5\pi/6$
# <u>3</u> Answer: 1 At the x-values where $f(x) = \cos x$ has a relative maximum, $g(x) = \sec x$ has a _____. 1. Vertical asymptote 2. Relative maximum 3. Relative minimum 4. X-intercept 	# <u>5</u> Answer: 4 $\tan^{-1}(-1) = -\pi/4$



Support



- Help Sessions Before School
 - I am available most mornings after 8:15 am till the beginning of 1st period, including quiz and test days.
 - Every two weeks, not available on Thursdays due to Math Department meetings
- Flex Fridays
 - Students should select tutoring on the Flex Friday form
 - 8:55 am – 9:25 am
 - 9:30 am – 10:00 am
- Other resources?
 - Textbook (online)
 - Math Tutoring Center during 4th & 5th Lunch (not available yet)

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Thank you!
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