Unit 3: Graphs of the Trigonometric Functions

CAN YOU:

• Accurately draw one cycle of each parent function and one for each of reciprocal function:

- Sine function?
 Graphing Packet: 6A and 6B
- Cosine function?
 Graphing Packet: 6A and 6B
- Tangent function?
 Graphing Packet: 8A and 8B
- Given a trigonometric graph or equation:
 - Find the values of the Maximum and Minimum?
 Graphing Packet: 3A-3B, 7A-7B
 - Determine the equation of the center line? Graphing Packet: 2A-2B, 7A-7B
 - Find the period?
 Graphing Packet: 5A-5B, 7A-7B
 - Determine the Amplitude, Frequency, Phase Shift, Vertical Shift? Graphing Packet: 2A-7B
 - Find the Domain and Range?
 Graphing Packet: 2A-7B
 - Find the value of the x-intercepts and y-intercept?
 Graphing Packet: 4A-4B, 7A-7B
 - Write an equation of the graph using a sinusoidal function:
 - $y = A \sin[B(x-C)] + D$
 - $y = A\cos[B(x-C)] + D$

Explain how the value and/or sign of A, B, C, D in the equation transform the parent graph?
 Graphing Packet: 7A and 7B

- Write an equation of a sinusoidal graph given information about the graph?
- Given real-world data, find a sinusoidal model (equation)?
 - Given the equation used in a real-world situation, answer questions about the graph or situation?
 - Given a data table, write a sinusoidal equation to model the data and use it to make a prediction?

Graph all six trig functions with transformations?
 Graphing Packet: 6A-6B and 8A-1OB