**Summary: Unit 6 - Sinusoidal Functions**

Be able to…

1. Identify real-world examples of periodic behaviour such as (but not limited to) a normal ECG, tent caterpillar population with time, economic prosperity, sound and light waves, outside seasonal temperature, height of a person on a Ferris wheel, etc…
2. Be able to state the amplitude, phase shift, period, vertical displacement, domain and range for a sinusoidal function given its graph or equation.
3. Create sketches for the following basic sinusoidal curves from memory:

$y=\sin(θ)$ $y=-\sin(θ)$ $y=\cos(θ)$ $y=-\cos(θ)$

1. Memorize and apply the following key equations for sinusoidal functions:

  and   and 

1. Graph a sinusoidal function using either the 5-point method or the box method when the function is presented in the following format:

  and 

1. Determine the equation of a sinusoidal function from a graph; there are multiple equations that can represent one sinusoidal function.
2. Read a word problem that describes a situation that can be modeled by a sinusoidal function. Use this information to sketch a graph, create an equation then answer a follow-up question using your equation.

**Practice:** Complete the Sinusoidal Functions worksheet +

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