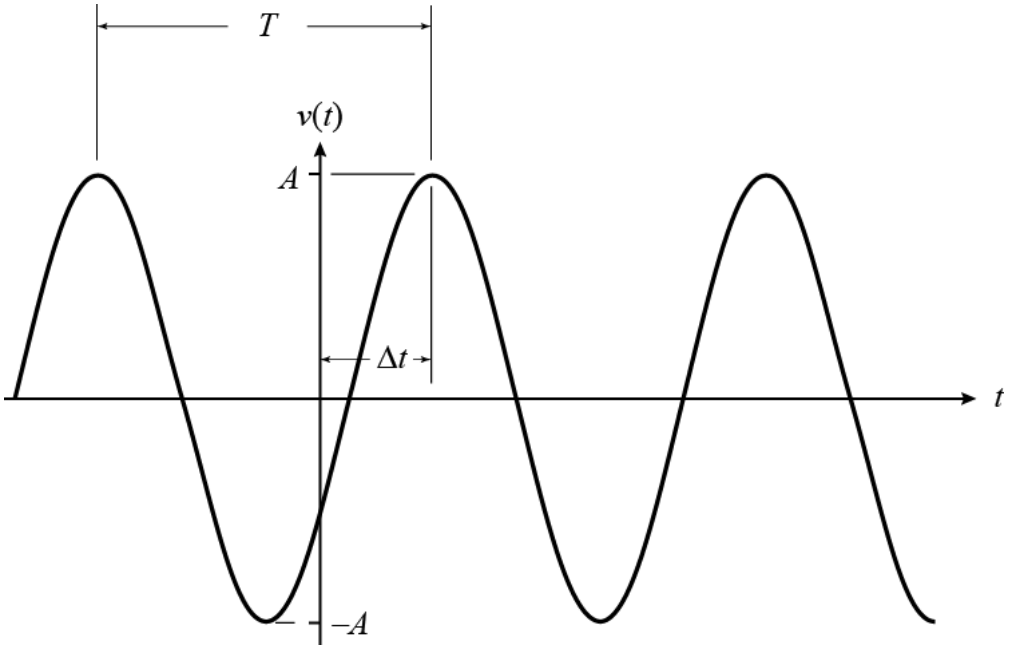
TOOL: The diagram and equations below illustrate how to find the parameters of a sinusoid.



The expression for a sinusoid may always be written in terms of a cosine with a phase shift:

$$v(t) = A\cos(2\pi ft + \phi)\text{V} = A\cos(\omega t + \phi)\text{V}$$

where

$A \equiv$ Amplitude

$f \equiv$ frequency (cycles/s or Hertz) $= \dfrac{1}{T}$

$\phi \equiv$ phase shift $= -\dfrac{\Delta t}{T}\cdot 2\pi\,(\text{radians}) = -\dfrac{\Delta t}{T}\cdot 360°$

$\omega \equiv$ angular frequency (radians/s) $= 2\pi f$

$\Delta t \equiv$ time at max of sinusoid (s)

$T \equiv$ period of sinusoid (s) = time between peaks (s)