Periodic Behaviour

Periodic - Function — A function that repeats itself at regular intervals.

Period - Horizontal length of a cycle of a periodic function.
- Length until function repeats

Cycle - One complete pattern of a periodic function

Midline - the line in the middle. Horizontal between max and min of function

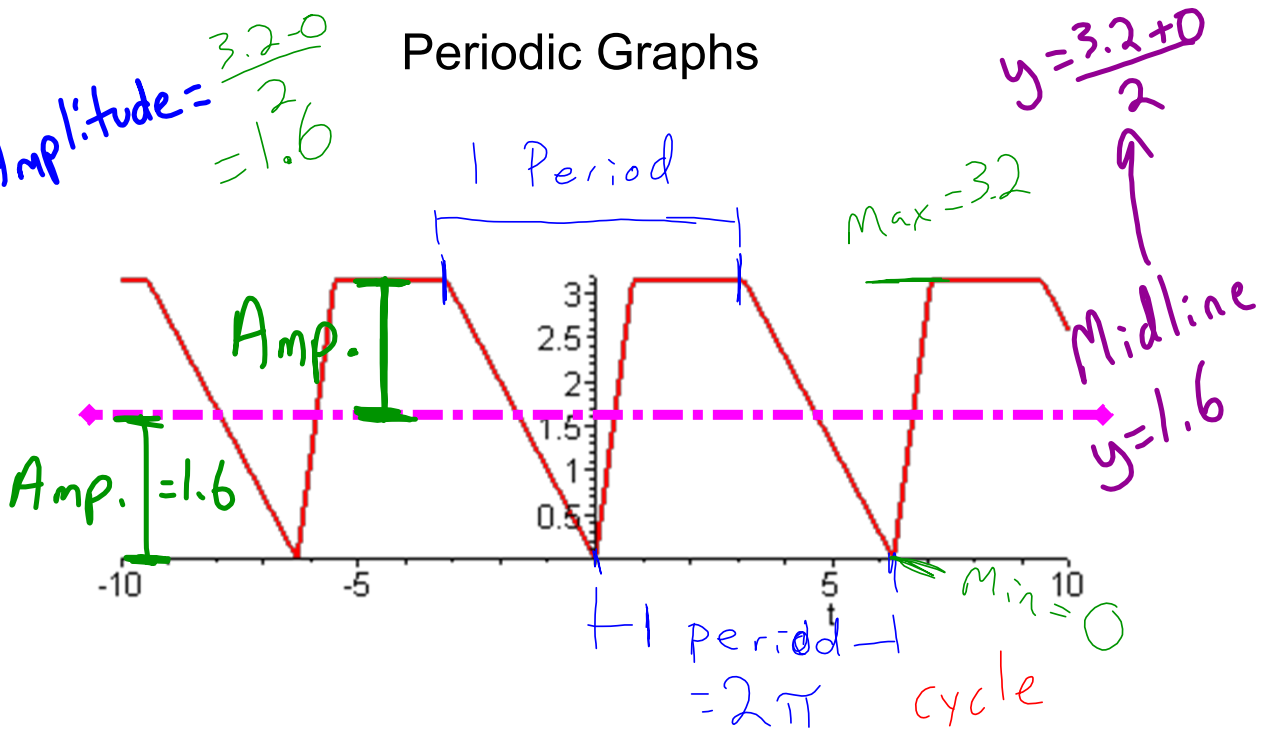
Midline → $y = \frac{max + min}{2}$

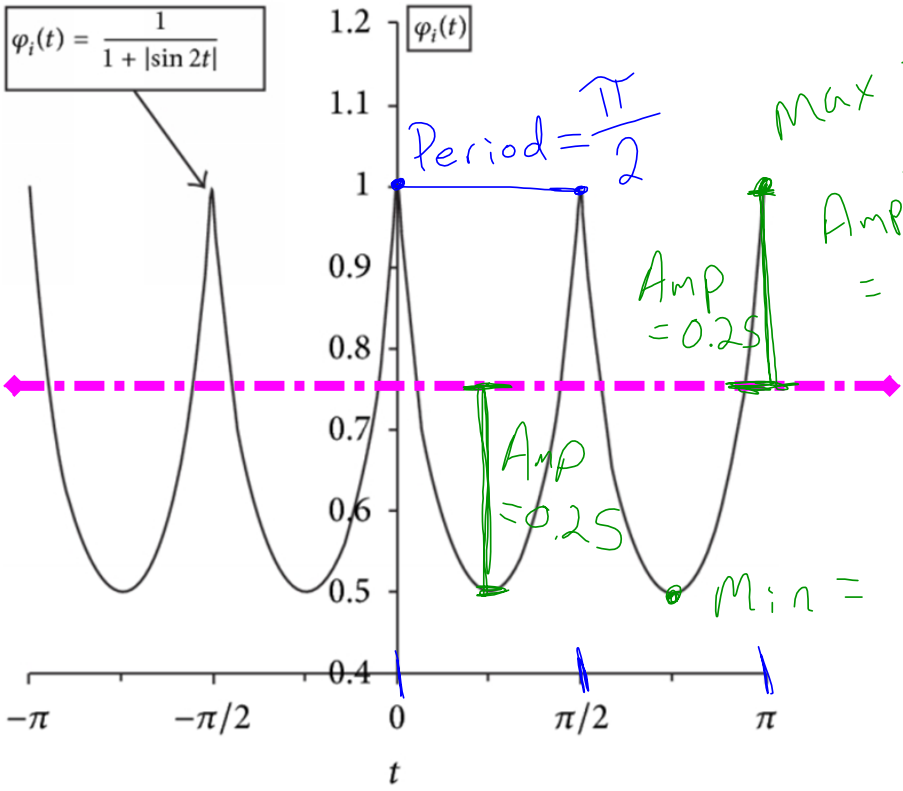
Amplitude - Half the distance between max and min of a periodic function.
- Midline to max/min

$Amplitude = \frac{max - min}{2}$

Periodic Graphs

Amplitude = $\frac{3.2-0}{2} = 1.6$





Midline
$y = \frac{1+0.5}{2}$
$y = 0.75$

Period = $\frac{\pi}{2}$

Max = 1

Amplitude = $\frac{1-0.5}{2} = 0.25$

Amp = 0.25

Amp = 0.25

Min = 0.5