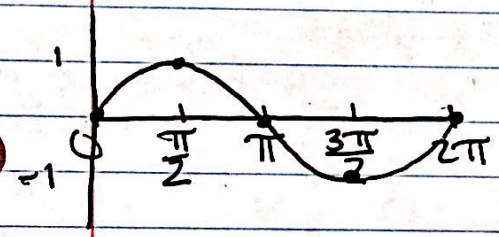
Graphing Sine and Cosine

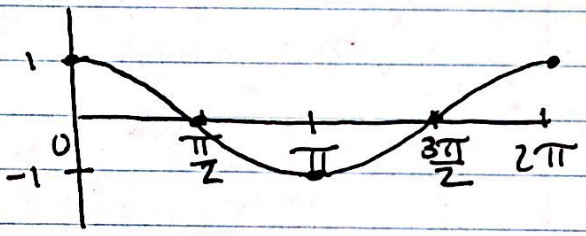
- Periodic Function - An oscillating function that repeats a pattern of y-values at regular intervals.
- Period - One complete repetition of the pattern
- Amplitude - Half the distance from the max to the min

$y = \sin\theta$



Period - 2π
D: $[0, 2\pi]$
R: $[-1, 1]$

$y = \cos\theta$



Period: 2π
D: $[0, 2\pi]$
R: $[-1, 1]$

Standard Form:

$y = a \sin k(x-b)+c$ $\quad y = a \cos k(x-b)+c$

a - amplitude
period - $\frac{2\pi}{k}$

b - phase shift
c - vertical shift