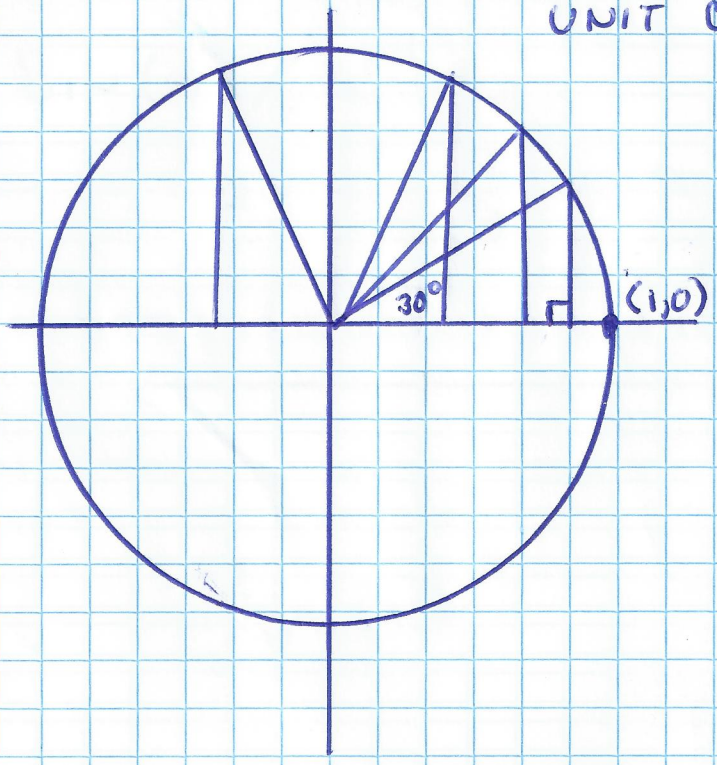
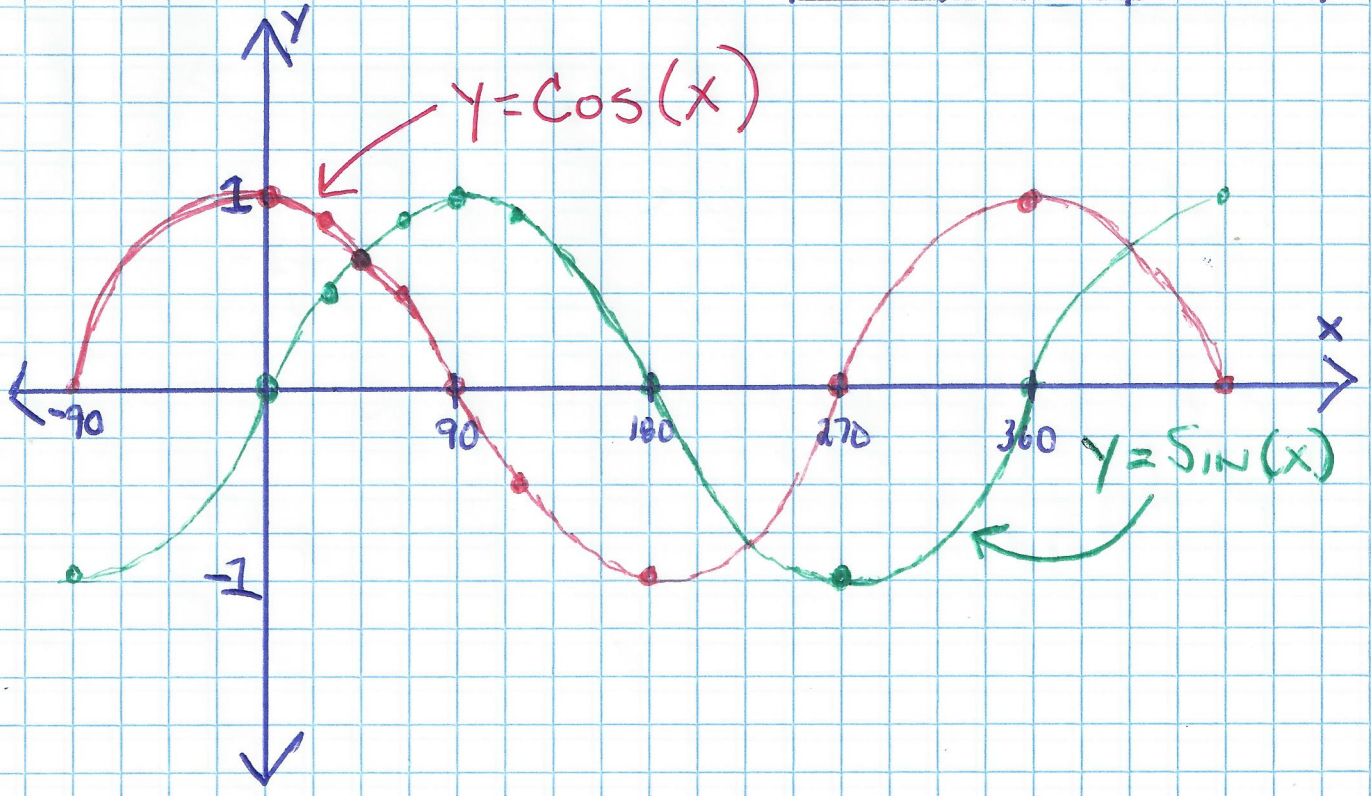
UNIT CIRCLE



∅	Sin ∅	Cos ∅
0°	0	1
30°	.5	.8660
45°	.7071	.7071
60°	.8660	.5
90°	1	0
120°	.8660	-.5
180°	0	-1
270°	-1	0
360°	0	1



TRIGONOMETRIC / PERIODIC FUNCTIONS

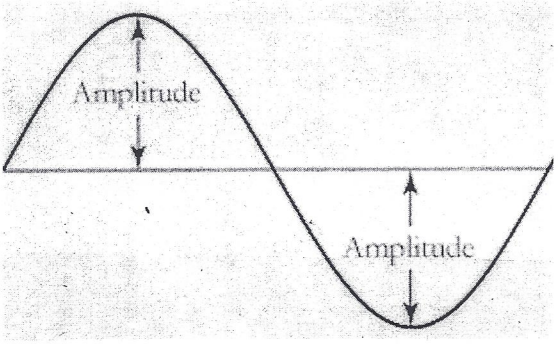
USUALLY OSCILLATING (WAVE LIKE) FUNCTIONS THAT REPEAT A PATTERN of y-VALUES AT REGULAR INTERVALS.

Cycle: ONE COMPLETE REPETITION OF THE PATTERN

PERIOD: HORIZONTAL LENGTH OF ONE COMPLETE CYCLE

AMPLITUDE: ONE HALF OF THE POSITIVE DIFFERENCE BETWEEN THE MAXIMUM AND MINIMUM VALUES OF FUNCTION.

$$\text{AMPLITUDE} = \frac{|\text{MAX} - \text{MIN}|}{2}$$



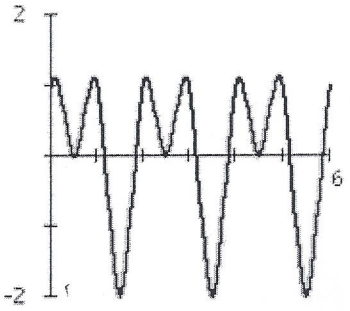
CENTER LINE AXIS (CLA):
HORIZONTAL LINE FOUND
HALF WAY BETWEEN THE
MAXIMUM AND MINIMUM VALUES
OF FUNCTION.

$$CLA \quad Y = \frac{MAX + MIN}{2}$$

(AN AVERAGE OF HIGHEST AND LOWEST
Y VALUES OF FUNCTION)

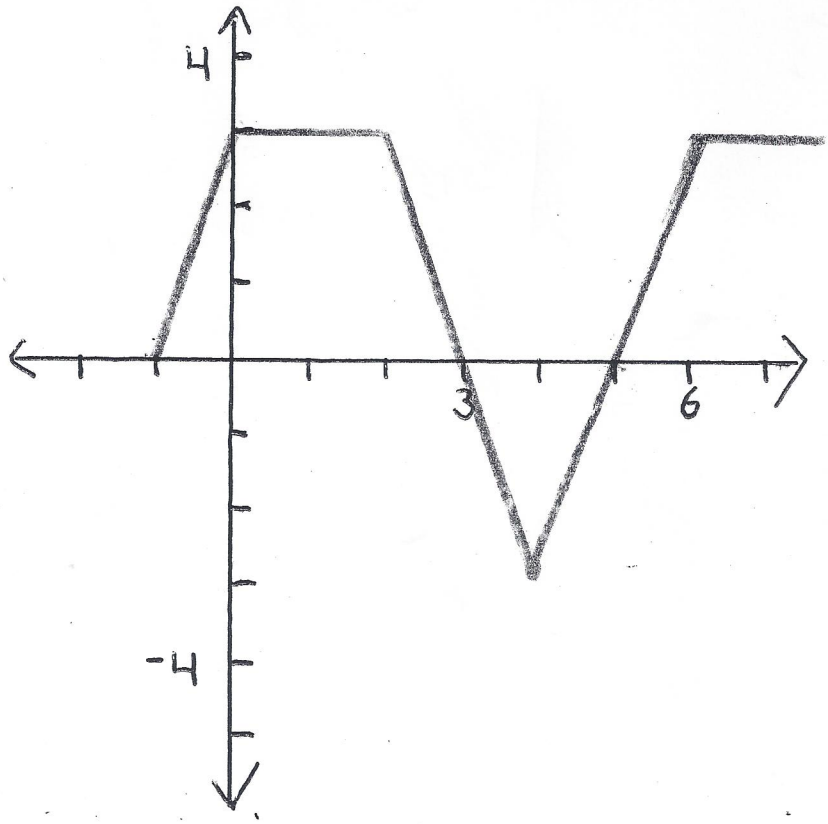
FREQUENCY: NUMBER OF
CYCLES THE FUNCTION WILL
COMPLETE IN A GIVEN INTERVAL
(NORMALLY 360° OR 2π)

$$1/PERIOD$$

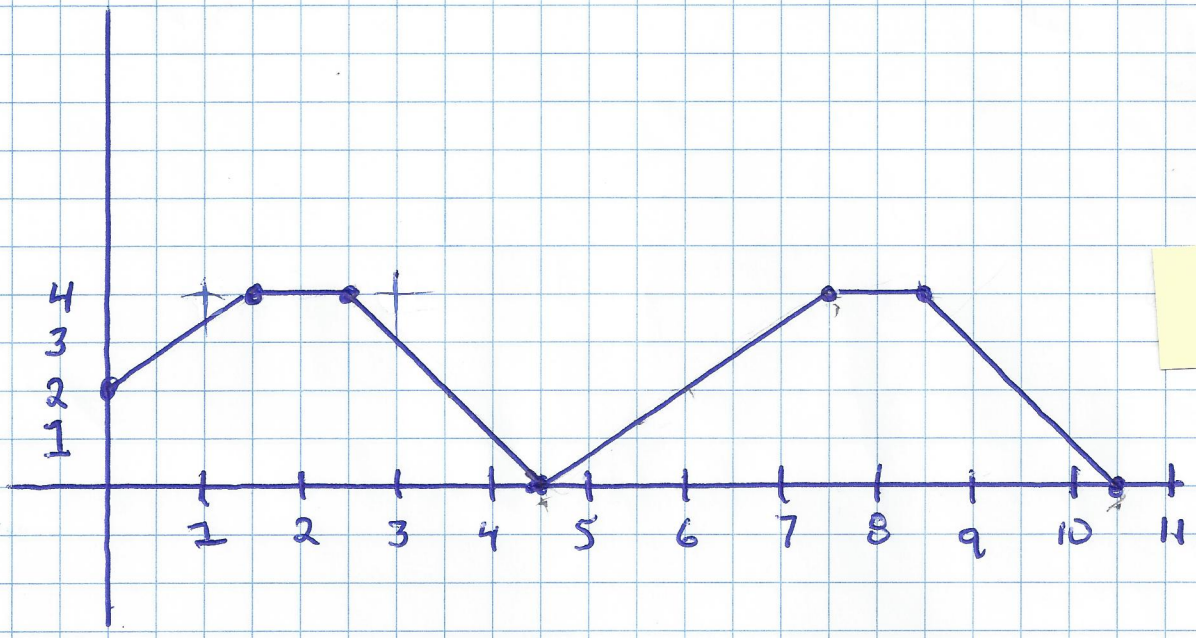


PERIOD: 2
MAX: 1
MIN: -2
AMPLITUDE: 1.5
CLA: $y = -0.5$

NOT ALL PERIODIC FUNCTIONS HAVE TO HAVE A SMOOTH OSCILLATING PATTERN LIKE $y = \sin(x)$ AND $y = \cos(x)$



PERIOD: 6
CLA: $y = 0$
MIN: -3
MAX: 3
AMPLITUDE 3



PERIOD: SIX

CLA: $y = 2$

MIN: ZERO

MAX: FOUR

AMPLITUDE: TWO

DRAW ONE CYCLE: