TRIGONOMETRIC FUNCTIONS REFERENCE

Standard Wave Properties & Transformations

General Form: $y = A \sin(B(x - C)) + D$

y = sin(x)

[Sine Wave Graph: Starts at Origin (0,0)]

Domain:	(-âˆž, âˆž)
Range:	[-1, 1]
Period:	2Ï€
Amplitude:	1
Intercept:	(0, 0)

y = cos(x)

[Cosine Wave Graph: Starts at Max (0,1)]

Domain:	(-âˆž, âˆž)
Range:	[-1, 1]
Period:	2Ï€
Amplitude:	1
Intercept:	(0, 1)

Transformation Key

|A| Amplitude	Vertical stretch/compression (Height of the wave)
B Period Factor	Period = 2Ï€ / B (Horizontal stretch/compression)
C Phase Shift	Horizontal translation (Left/Right movement)
D Vertical Shift	Vertical translation (Midline adjustment)

Common Values (Unit Circle)

Degrees	0	30	45	60	90
Radians	0	Ï€/6	Ï€/4	Ï€/3	Ï€/2
sin(x)	0	1/2	âˆš2/2	âˆš3/2	1
cos(x)	1	âˆš3/2	âˆš2/2	1/2	0