

Trigonometry Worksheet: Graph Trigonometric Functions (1)

Graph the trigonometric function given by

$$y = 2 \cos(2x)$$

An interval containing exactly one cycle can be found by solving the inequality.

$$0 \leq 2x \leq 2\pi, \quad 2\pi \text{ is the period of Cosine function.}$$

$$\Rightarrow 0 \leq x \leq \pi.$$

We now construct a table of values

$2x$	0	$\frac{\pi}{2}$	π	$\frac{3\pi}{2}$	2π	} used for easy calculations
$\cos(2x)$	1	0	-1	0	1	
x	0	$\frac{\pi}{4}$	$\frac{\pi}{2}$	$\frac{3\pi}{4}$	π	} value to put in graph.
y	2	0	-2	0	2	

