

Unit 3: Trigonometric Ratios

Lesson 1: Exploring Graphs

For each function provided:

- Complete the table of values (round to 2 decimal places) (**Make sure your calculator is in DEGREE mode**)
- Plot the points and graph the function, choosing a scale that will utilize the entire grid.
- State the **domain** and **range**
- Verify your graphs using graphing technology

1. $f(x) = \sin(x)$

2. $g(x) = \cos(x)$

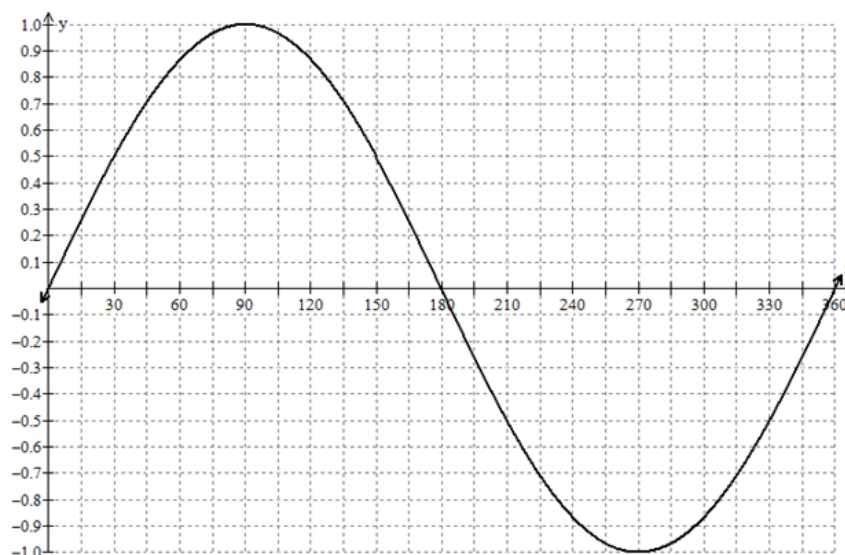
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1. $f(x) = \sin(x)$

$x (^{\circ})$	$f(x)$
0	0.00
30	0.50
45	0.71
60	0.87
90	1.00
120	0.87
135	0.71
150	0.50
180	0.00
210	-0.50
225	-0.71
240	-0.87
270	-1.00
300	-0.87
315	-0.71
330	-0.50
360	0.00

Domain: $\{x \mid x \in \mathbb{R}\}$

Range: $\{y \mid y \in \mathbb{R}, -1 \leq y \leq 1\}$



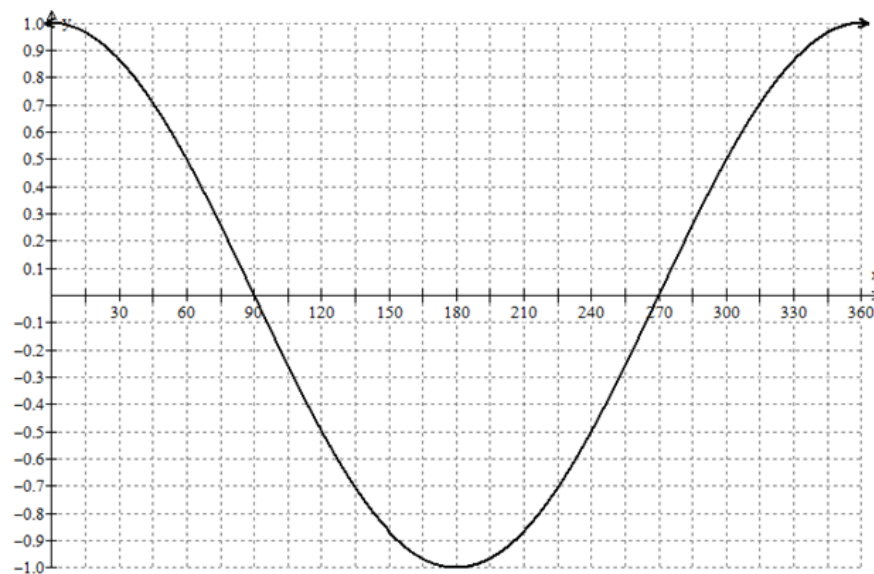
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2. $g(x) = \cos(x)$

x ($^\circ$)	$g(x)$
0	1.00
30	0.87
45	0.71
60	0.50
90	0.00
120	-0.50
135	-0.71
150	-0.87
180	-1.00
210	-0.87
225	-0.71
240	-0.50
270	0.00
300	0.50
315	0.71
330	0.87
360	1.00

Domain: $\{x \mid x \in \mathbb{R}\}$

Range: $\{y \mid y \in \mathbb{R}, -1 \leq y \leq 1\}$



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