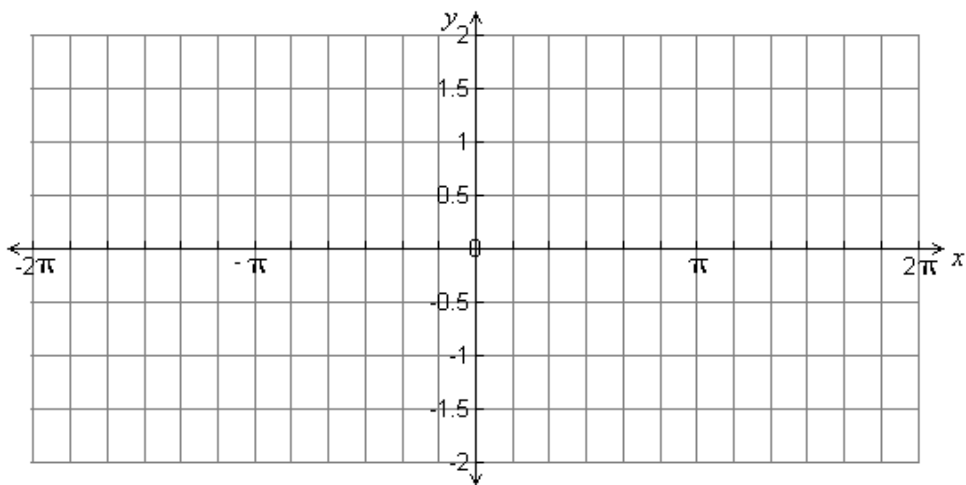


Precalculus Unit 6: Section 6.1 Notes

Graphs of Sine and Cosine Functions

$$y = \sin x$$



$$y = a \sin(bx - c) + d$$

Period:

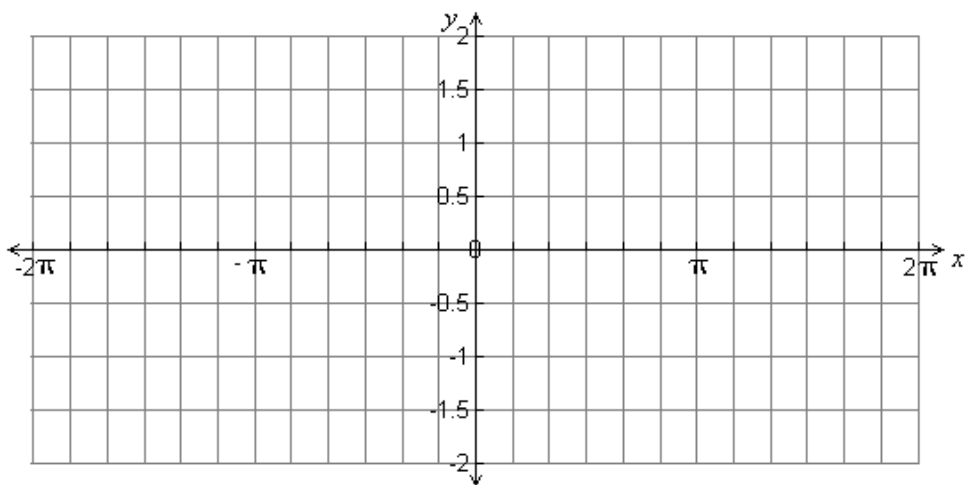
Amplitude:

Vertical Translation:

Left Endpoint:

Right Endpoint:

Example: $y = -2 \sin\left(\frac{2}{3}x - \frac{\pi}{3}\right)$



Period:

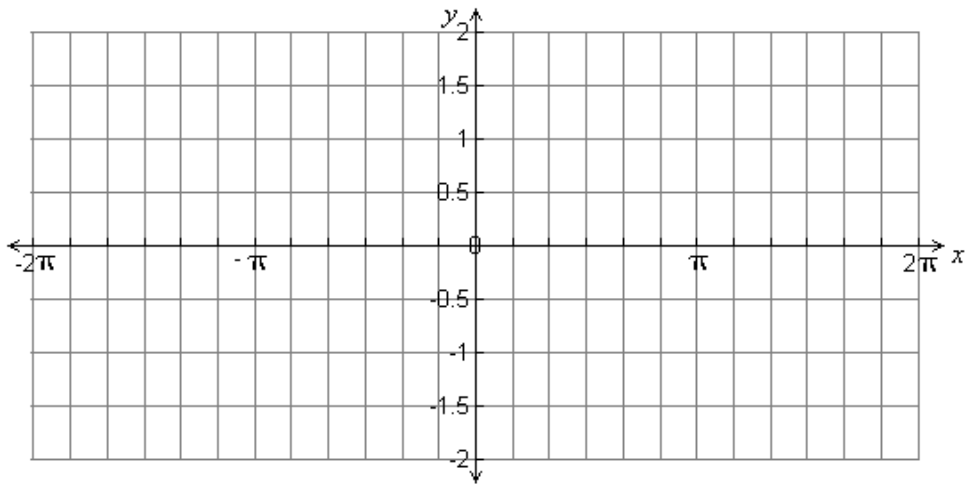
Amplitude:

Vertical Translation:

Left Endpoint:

Right Endpoint:

$$y = \cos x$$



$$y = a \cos (bx - c) + d$$

$$\text{Period: } \frac{2\pi}{b}$$

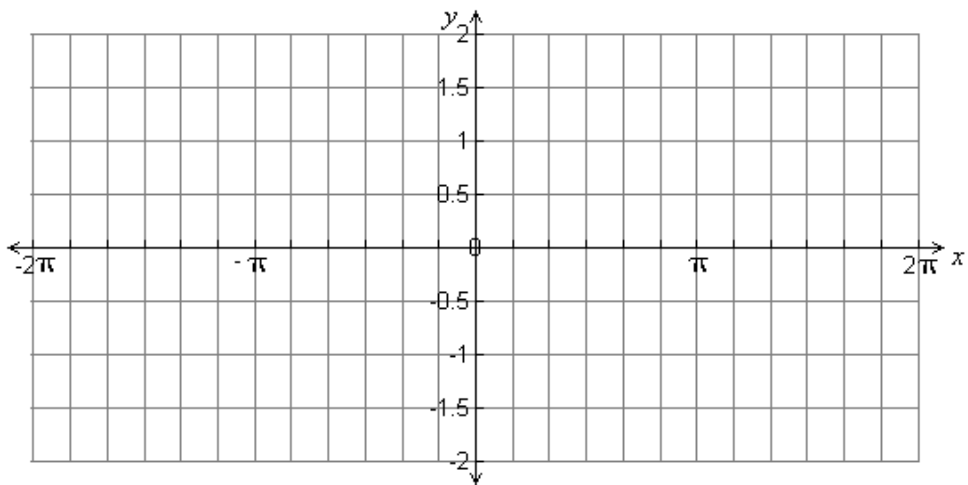
$$\text{Amplitude: } |a|$$

$$\text{Vertical Translation: } d$$

$$\text{Left Endpoint: } bx - c = 0$$

$$\text{Right Endpoint: } bx - c = 2\pi$$

$$\text{Example: } y = \cos\left(\frac{1}{2}x + \frac{\pi}{4}\right) + 1$$



Period:

Amplitude:

Vertical Translation:

Left Endpoint:

Right Endpoint: