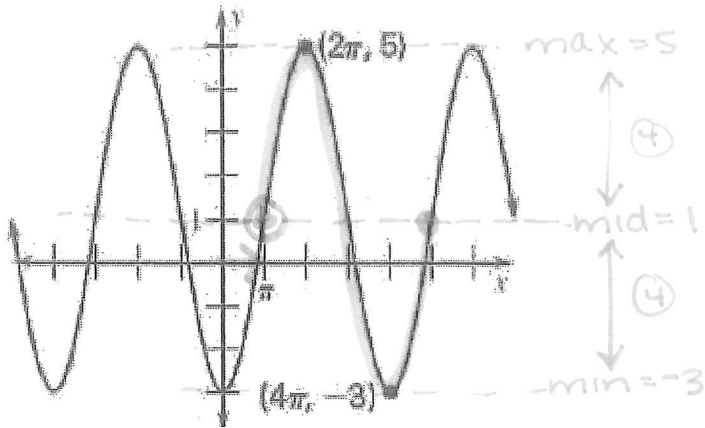


Notes/examples: Writing Equations in Radians

Example 3:

Write a sine equation for the periodic function.

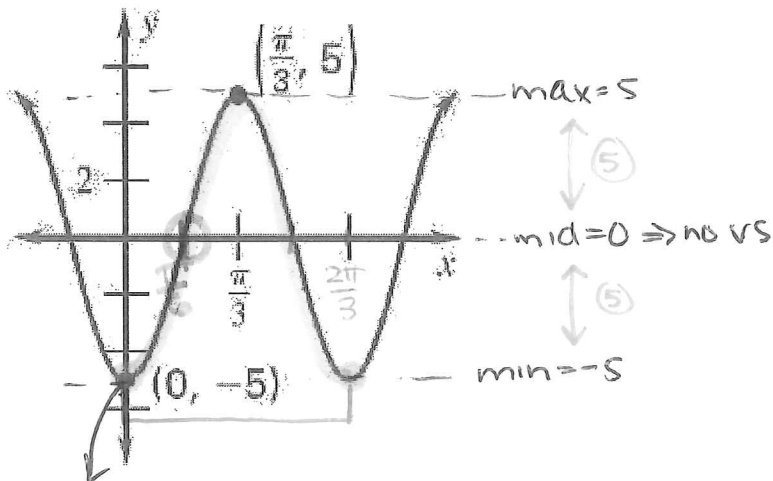


$\sqrt{S} \Rightarrow \text{up 1 (mid)}$
 Amp $\Rightarrow 4$ (A)
 $\frac{1\pi}{4\pi} \text{ to } \frac{5\pi}{4\pi} \Rightarrow \text{Period} = 4\pi$
 $\frac{2\pi}{B} = 4\pi \Rightarrow B = \frac{1}{2}$
 right $\pi \Rightarrow \text{PS}$

$$y = 4 \sin \frac{1}{2}(\theta - \pi) + 1$$

$$y = 4 \cos \frac{1}{2}(\theta - 2\pi) + 1$$

Example 4: Write a cosine equation for the periodic function.



Amp $\Rightarrow 5$
 $0\pi \text{ to } \frac{2\pi}{3}$
 Period = $\frac{2\pi}{3}$
 $\frac{2\pi}{B} = \frac{2\pi}{3} \Rightarrow B = 3$
 NO PS/NO VS

$-\cos \theta$
 Starts @
 minimum

$$y = -5 \cos 3\theta$$

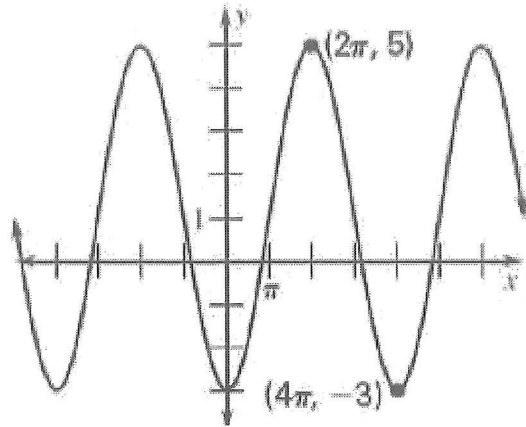
$$y = 5 \sin 3(\theta - \frac{\pi}{6})$$

$$y = 5 \cos 3(\theta - \frac{\pi}{3})$$

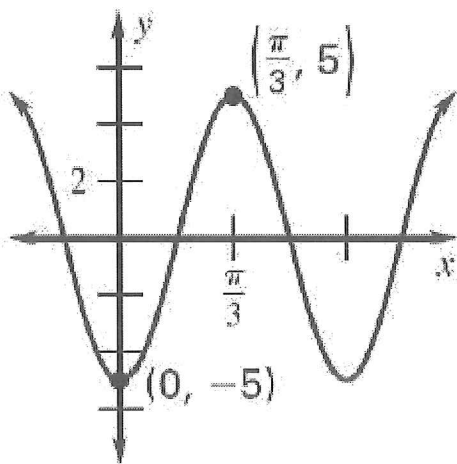
Notes/examples: Writing Equations in Radians

Example 3:

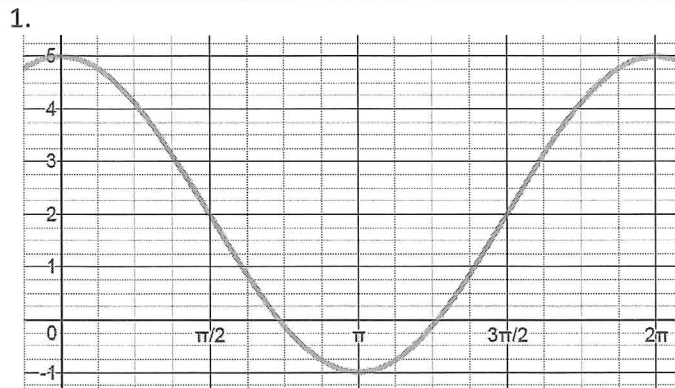
Write a sine equation for the periodic function.



Example 4: Write a cosine equation for the periodic function.



Directions: Write a sin **AND** cos function for each question. Identify and list the 4 key parts. Draw in the 3 guidelines. All functions are in radians.

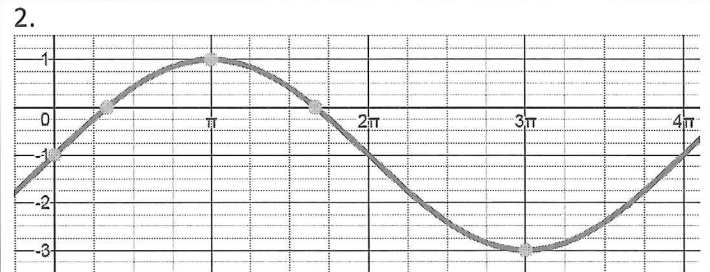


Amp _____ Per _____ VS _____ PS _____

$f(x) = \sin$

Amp _____ Per _____ VS _____ PS _____

$g(x) = \cos$

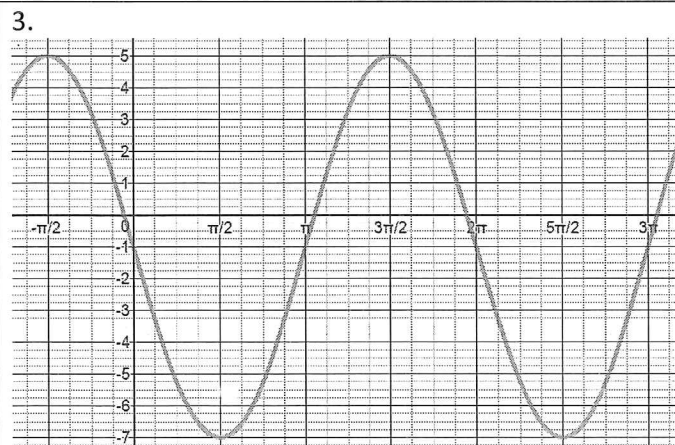


Amp _____ Per _____ VS _____ PS _____

$f(x) = \sin$

Amp _____ Per _____ VS _____ PS _____

$g(x) = \cos$

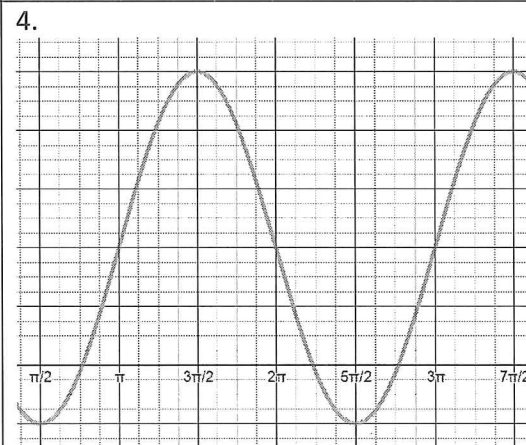


Amp _____ Per _____ VS _____ PS _____

$f(x) = \sin$

Amp _____ Per _____ VS _____ PS _____

$g(x) = \cos$



Amp _____ Per _____ VS _____ PS _____

$f(x) = \sin$

Amp _____ Per _____ VS _____ PS _____

$g(x) = \cos$