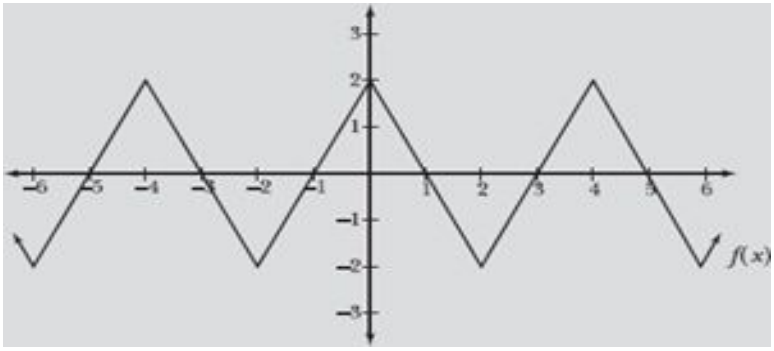
Station #1

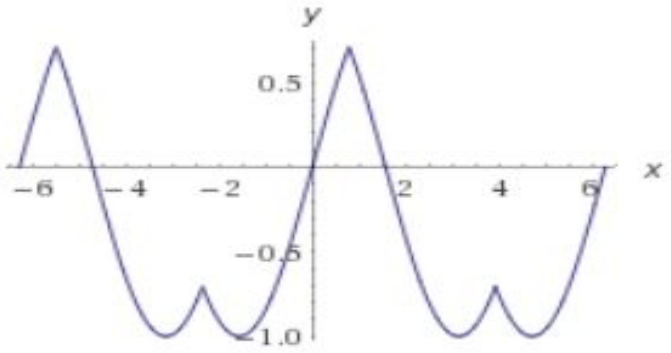
1)**<u>Explain</u>** how to calculate the *PERIOD* from a graph for a periodic function.

2) Calculate the <u>period</u> for the following graphs.

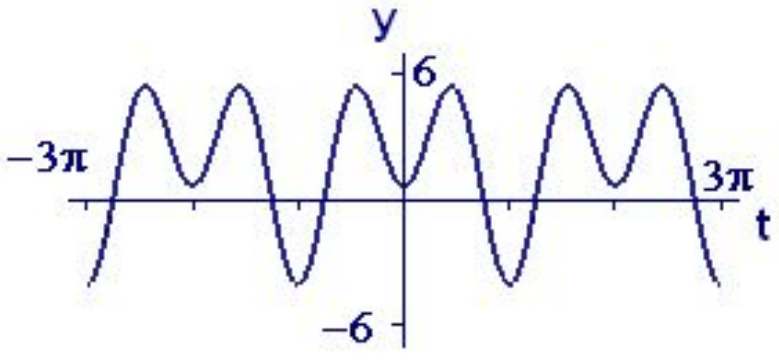
a)



b)



c)

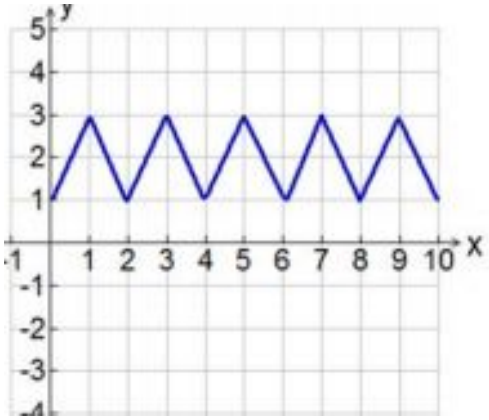


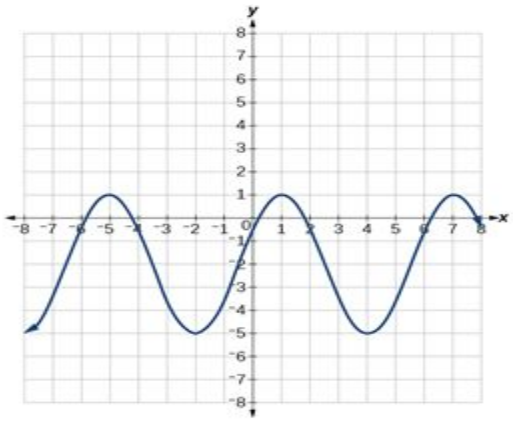
Think about the units for axis, enough information is given to figure it out :)

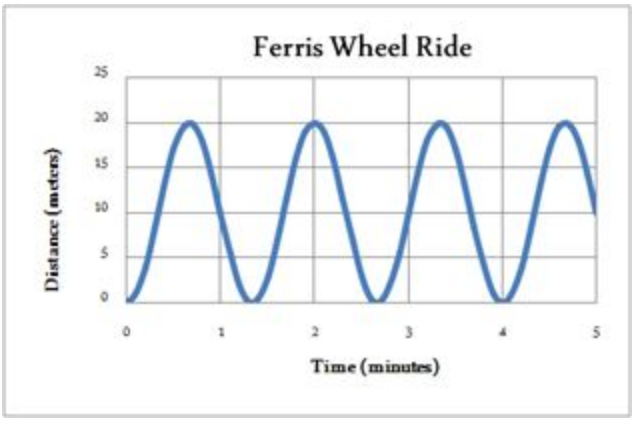
Station # 4

1) **Explain** how you would calculate the *amplitude* from a for a periodic function.

2) Calculate the amplitude for each graph.

a) 

b) 

c) 

Station # 3

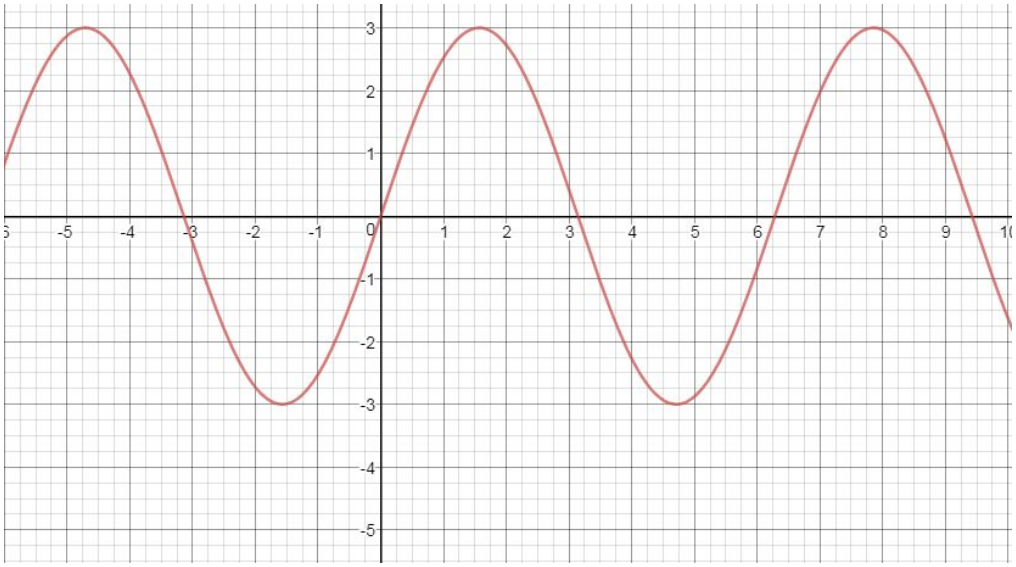
x	$f(x)$
0	0
$\frac{\pi}{8}$	2
$\frac{\pi}{4}$	0
$\frac{3\pi}{8}$	-2
$\frac{\pi}{2}$	0

1) Sketch the graph from the table.

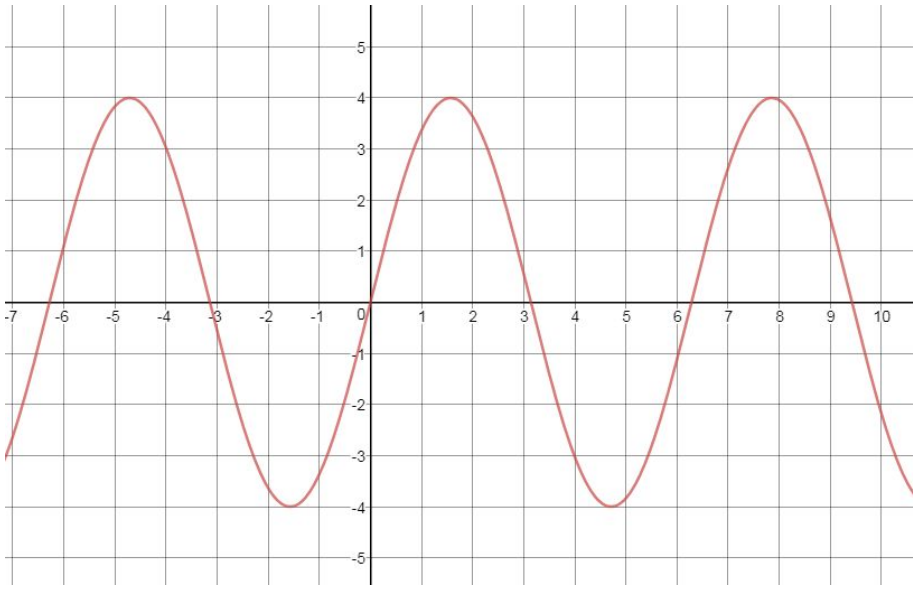
2) What is the period and amplitude of the function in the table?

3) Calculate the *amplitude* for these graphs if the period is the typical value.

a)



b)



Station # 2

1) Graph & describe $y=\sin(\theta)$
   a) State x-intercepts of 1 cycle
   b) State max of 1 cycle
   c) State min of 1 cycle

2) Make a table & graph the following $\sin(\theta)$ functions.

a) $3 \sin(\frac{1}{2}\theta)$

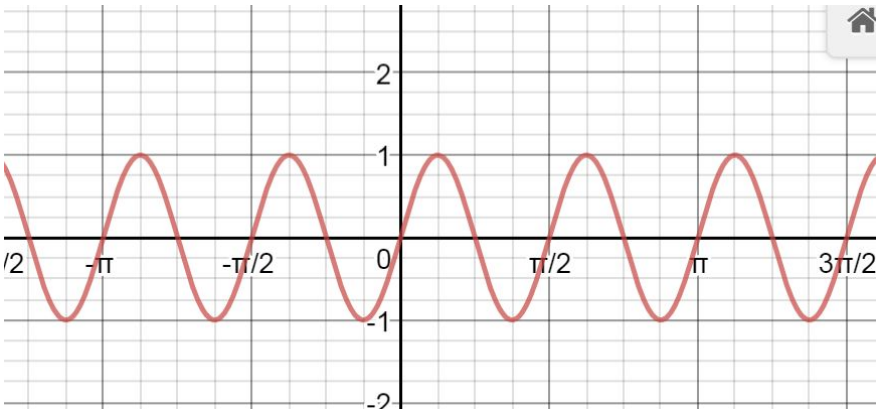
b) $-4 \sin(\theta)$

Station # 6

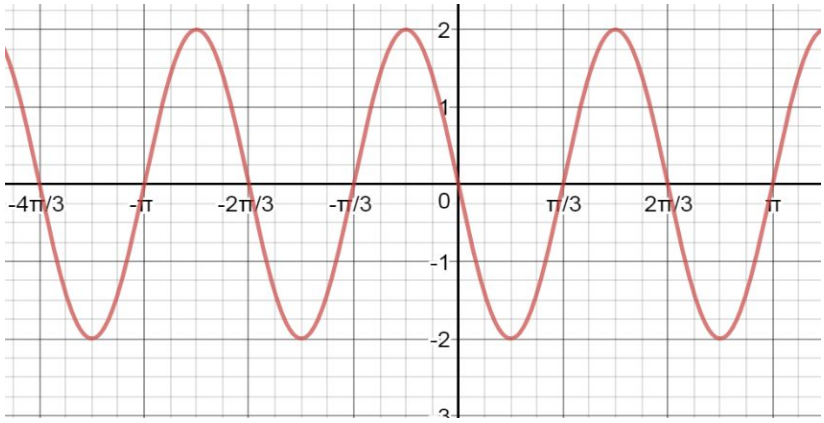
1) Determine whether each graph is the $\sin(\theta)$ function. Explain why or why not.

2) Calculate the period and amplitude for the following graphs.

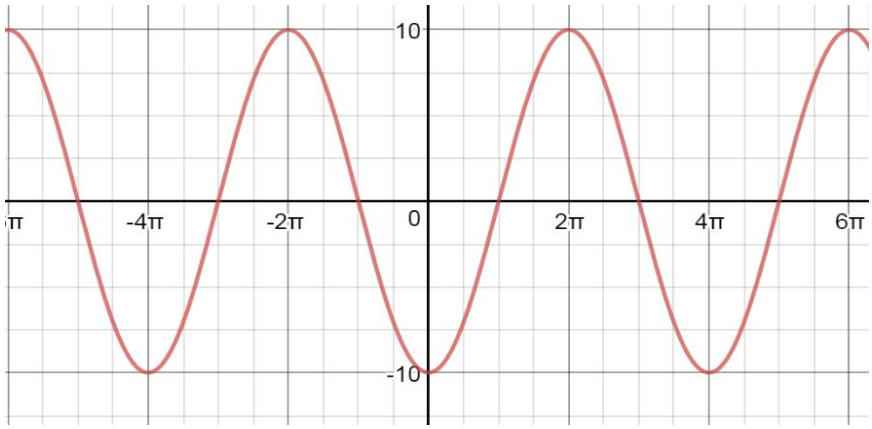
a)



b)



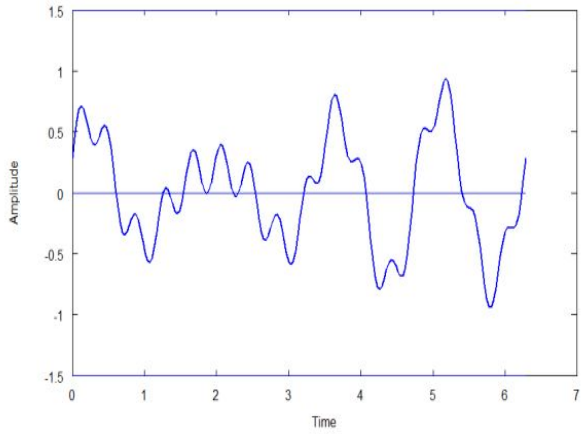
c)



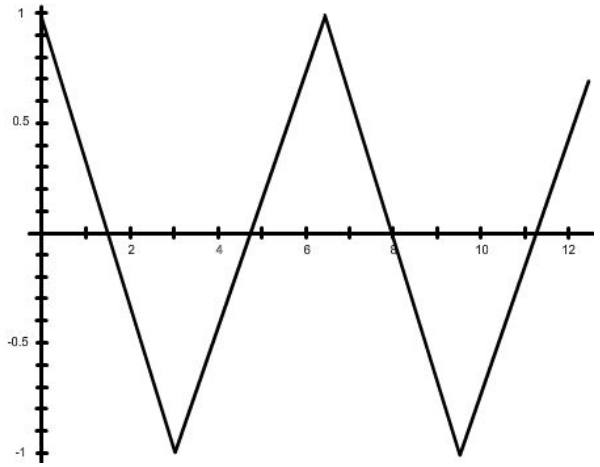
Station # 5

State whether or not each graph is periodic. Explain why or why not. If it is periodic, calculate the period.

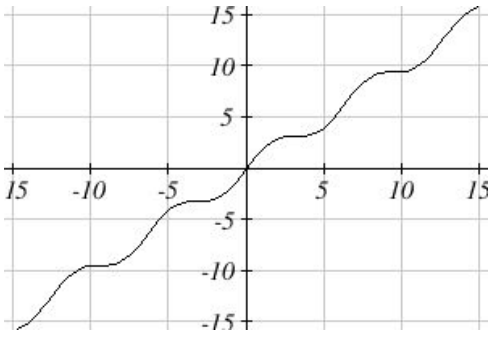
1)



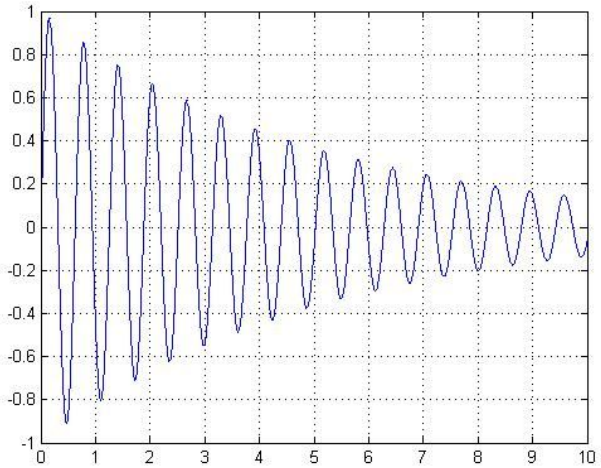
2)



3)



4)



Station #8

Given the information about sin(θ), create a table and graph the sine function.

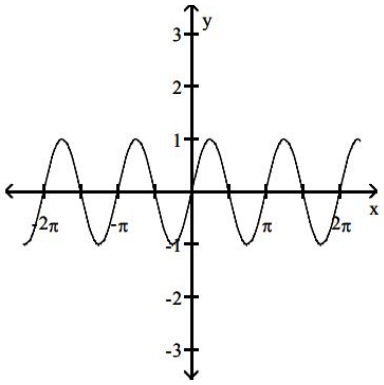
1) a= 2
   b= 4

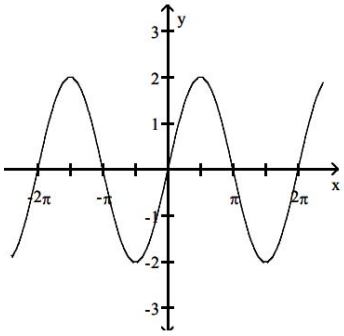
2) Amplitude is 3
   Period is π

3)Match the graph to the correct function. Explain how you know.

$y = \sin 2x$

$y = 2 \sin x$

a 

b 

Station # 7

Create a table and graph the following sin(θ) functions

1)- 2 sin(½ θ)

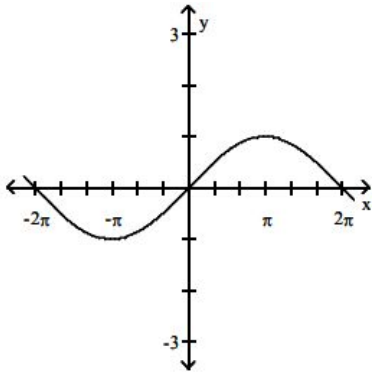
2) 4 sin (2 θ)

3) Match the equation to the graph and explain how you know.

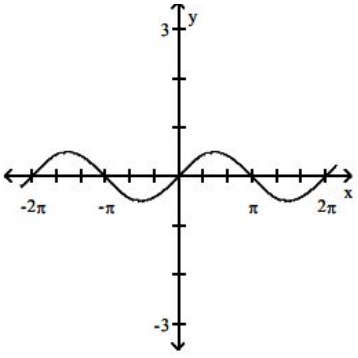
$y = \sin(\frac{1}{2}x)$

$y = \frac{1}{2}\sin x$

a)



b)



Name:_____.

Student Recording Sheet

Station 1 1)	Station 1 2a)	Station 2 1)Graph	Station 2 1) Features
Station 1 2b)	Station 1 2c)	Station 2 2a)	Station 2 2b)
Station 3 1)	Station 3 2)	Station 4 1)	Station 4 2a)
Station 3 3a)	Station 3 3b)	Station 4 2b)	Station 4 2c)

Station 5 1)	Station 5 2)	Station 6 1)	Station 6 2a)
Station 5 3)	Station 5 4)	Station 6 2b)	Station 6 2c)
Station 7 1)	Station 7 2)	Station 8 1)	Station 8 2)
Station 7 3)	Station 7 Extra workspace :)	Station 8 3a)	Station 8 3b)