Station #1
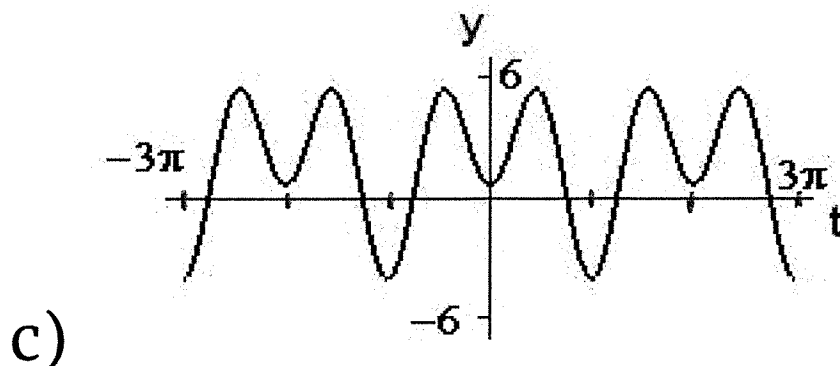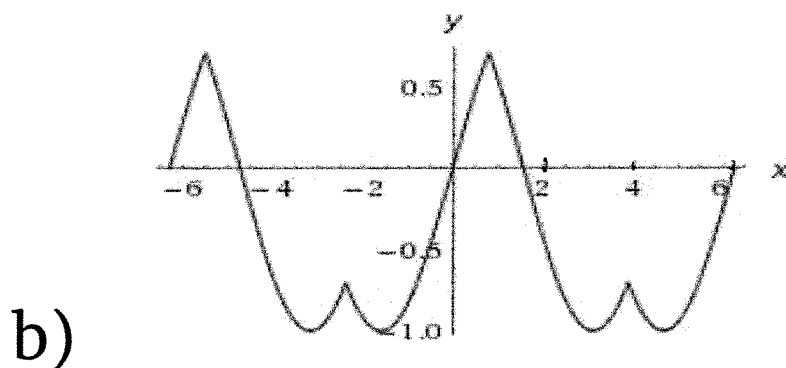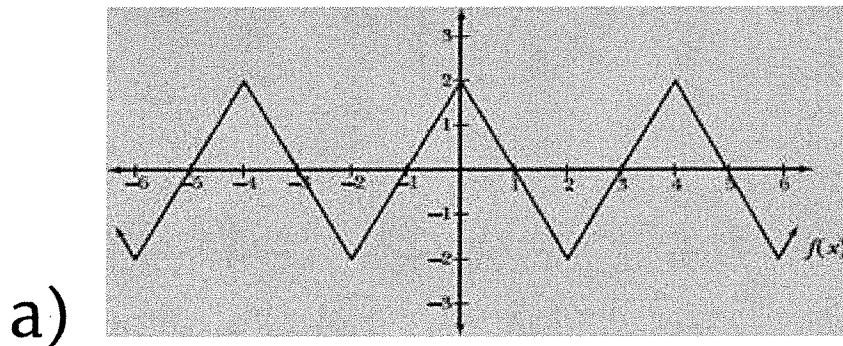
1) **Explain** how to calculate the *PERIOD* from a graph for a periodic function.

2) Calculate the **period** for the following graphs.

a)

b)

c)

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

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) <u>Make a table & graph</u> the following $\sin(\theta)$ functions.

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

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

For # 2, do the tables first. Then graph. If you need to— You can finish the graphs in another station that's quick or for hw.
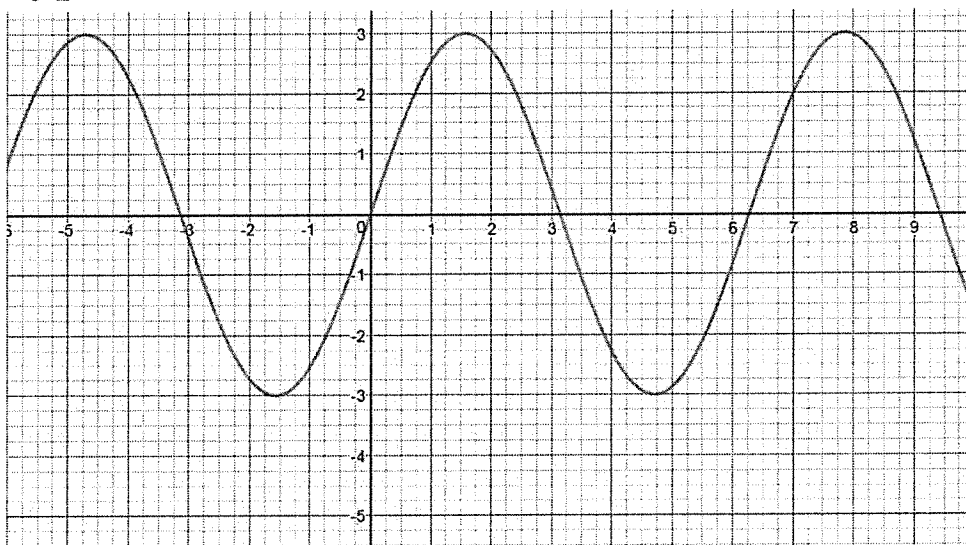
Station # 3
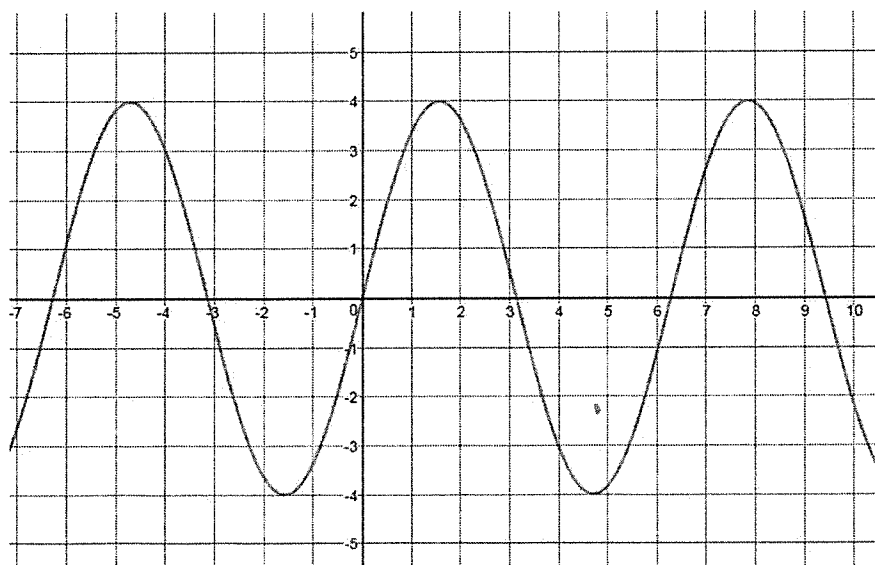
1) Sketch the graph from the table.

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.

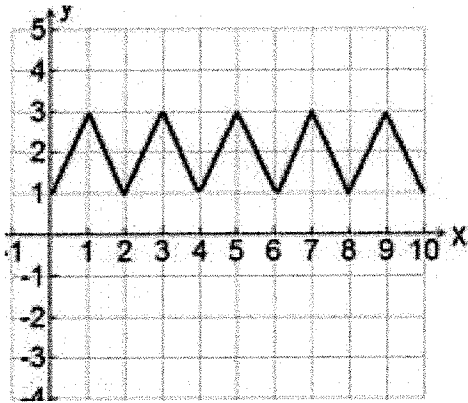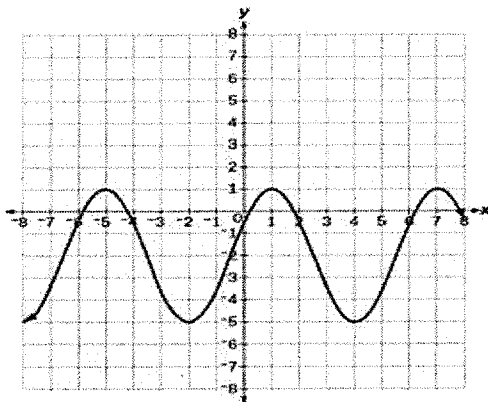| x	$f(x)$
0	0
$\frac{\pi}{8}$	2
$\frac{\pi}{4}$	0
$\frac{3\pi}{8}$	-2
$\frac{\pi}{2}$	0

a)

b)

Station # 4

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

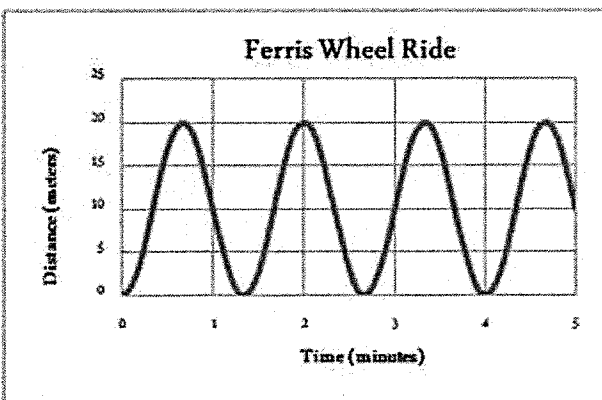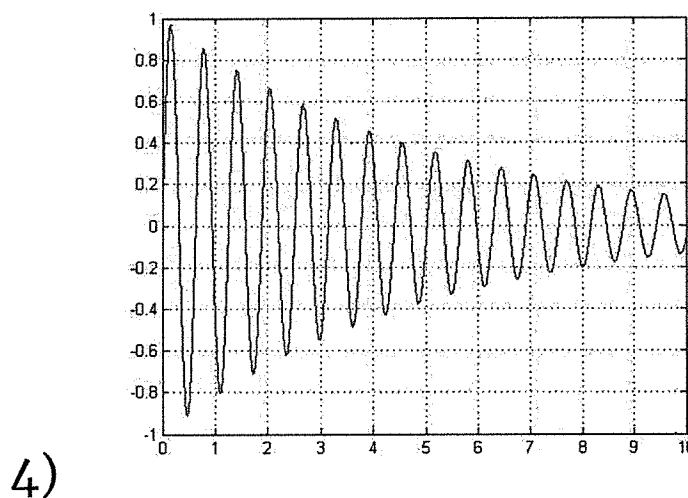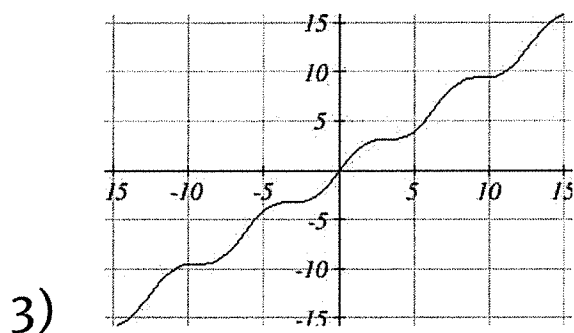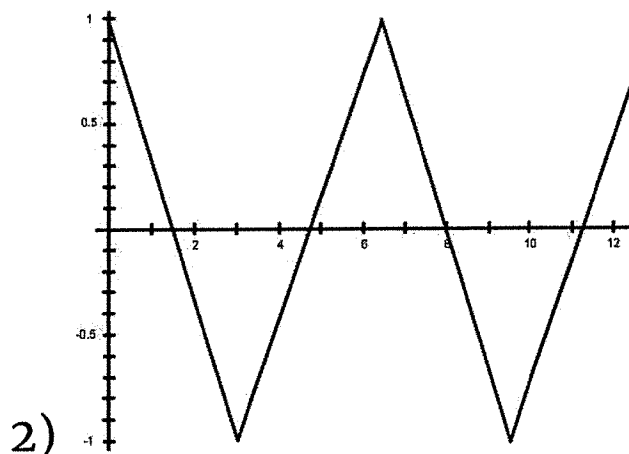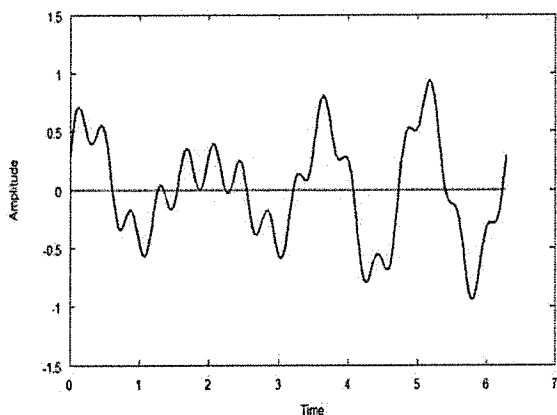2) Calculate the __amplitude__ for each graph.
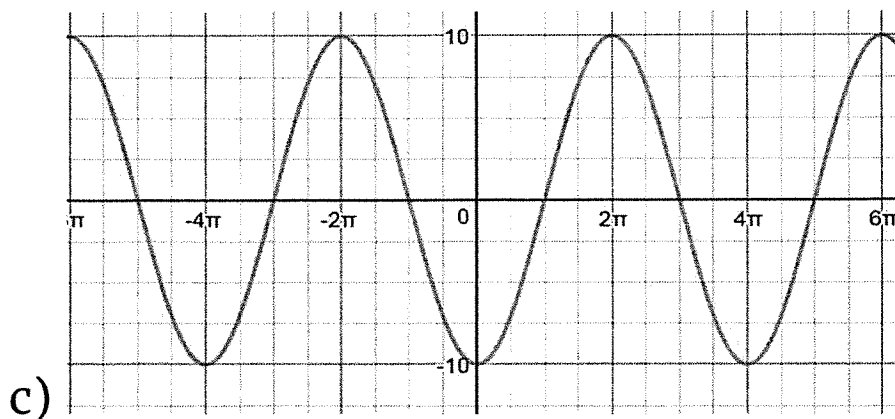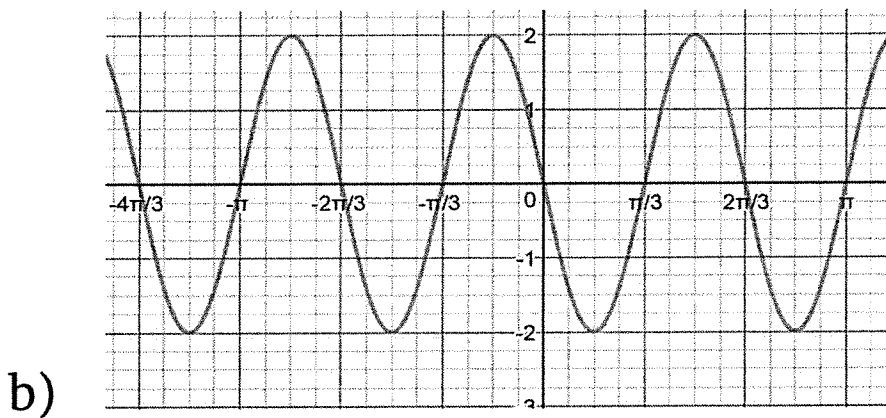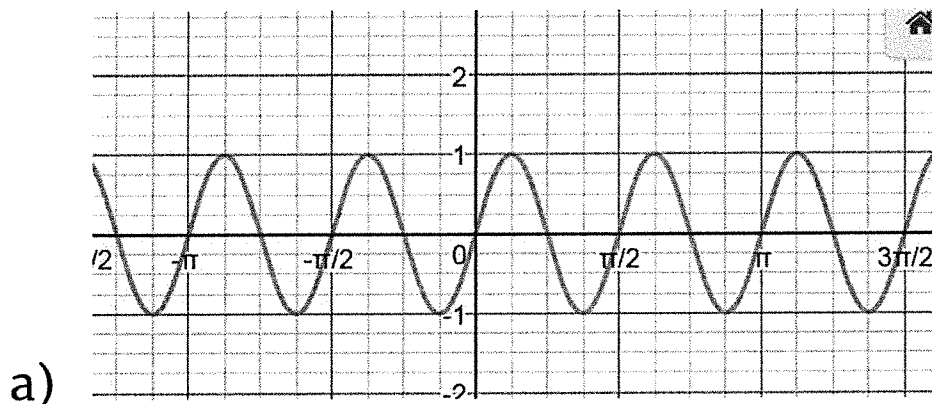
a)

b)

c)

Ferris Wheel Ride

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 # 6

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

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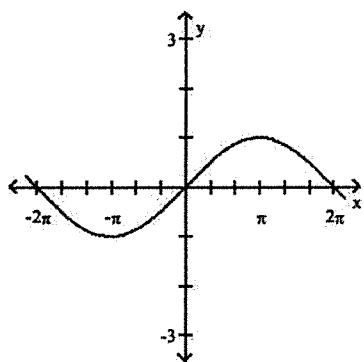
a)

b)

c)

Station # 7

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

do first

if you don't have time to finish, finish at a quick station or for hw.

1) $- 2 \sin(\frac{1}{2} \theta)$
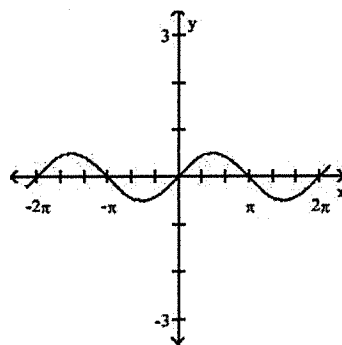
2) $4 \sin (2 \theta)$

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)

Station #8

Given the information about $\sin(\theta)$, <u>create a table</u> and graph the sine function.

DO FIRST

If you can't finish, finish in a "quick" Station or for hw

1) $a= 2$
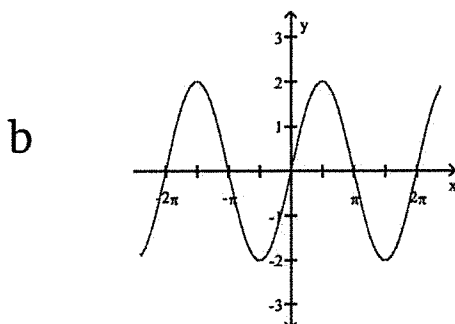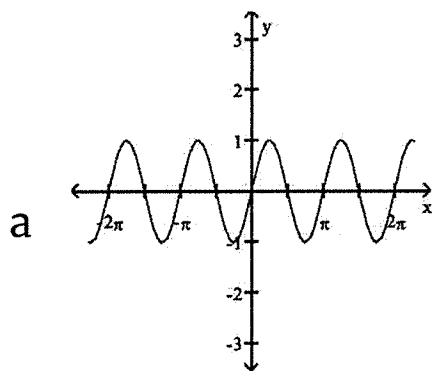 $b= 4$

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

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)