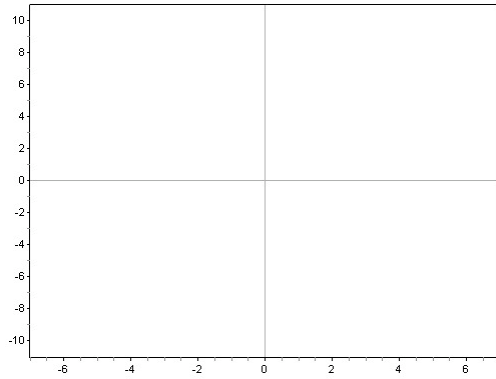


Name: _____

Sinusoid Curve Fitting with Fathom Student Worksheet

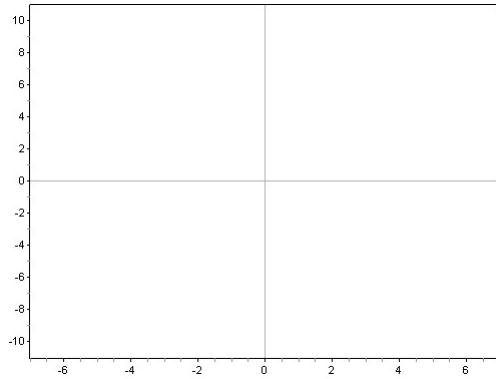
As we explore the graphs of sine and cosine functions, we find that they produce endless cycles. At the end of this activity, you will be able to describe each of four attributes—the amplitude, period, phase shift, and midline—and the effect of each upon the graph of a standard sine curve.

Open the Fathom activity (sinusoidcurvefitting.ftm) and rerandomize to get a new graph. Sketch it in the window below. Then manipulate the sliders until your graph matches the random one. Record your values in the box to the right.



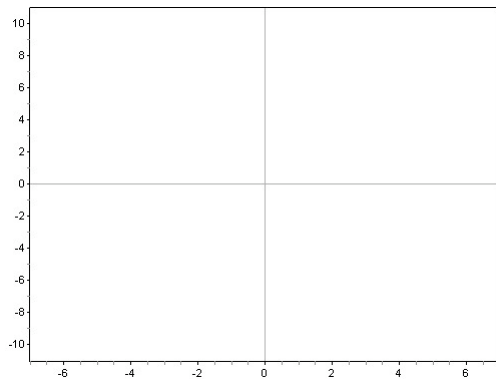
Amplitude	
Period	
Phase Shift	
Midline	

Get a new random graph and duplicate your steps.



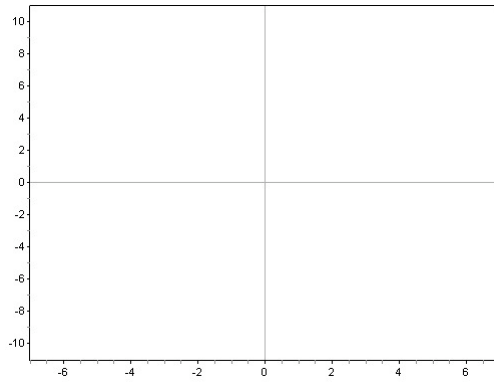
Amplitude	
Period	
Phase Shift	
Midline	

Work with the graph of a third sinusoid.



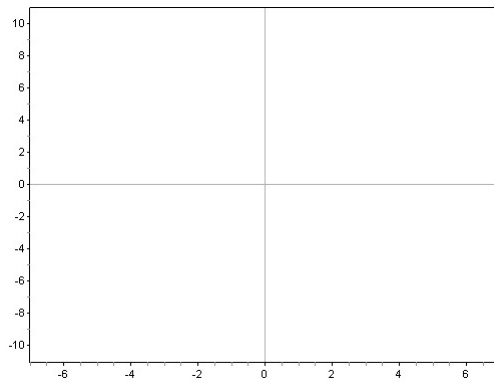
Amplitude	
Period	
Phase Shift	
Midline	

Fourth random sinusoid:



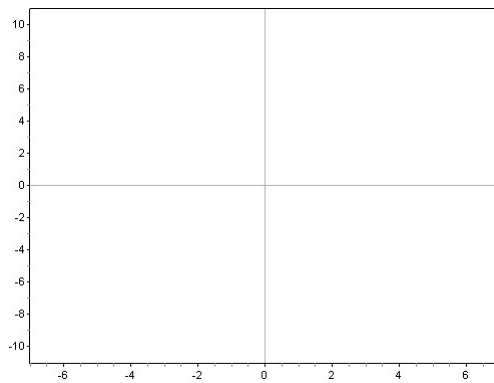
Amplitude	
Period	
Phase Shift	
Midline	

Fifth:



Amplitude	
Period	
Phase Shift	
Midline	

Sixth:



Amplitude	
Period	
Phase Shift	
Midline	

Name: _____

Describe the effect of changing each attribute on the graph of a sinusoid in your own words, using several sentences.

amplitude

period

phase shift

midline