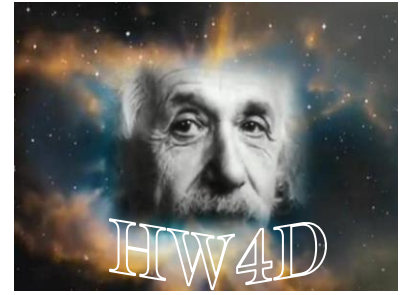
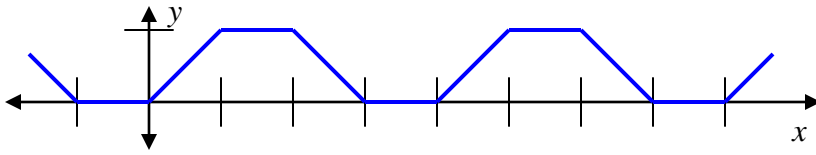


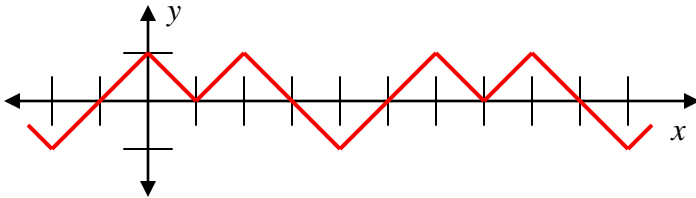
The graph of a function f is pictured. Determine its fundamental period, amplitude, and then find $f(500)$ and $f(-500)$.



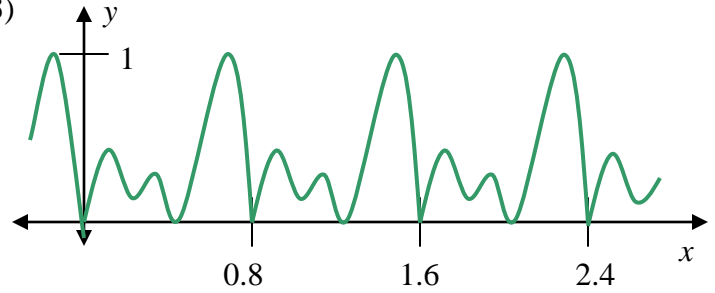
1)



2)



3)



4) Using the graph from #1, sketch the following:

a) $y = 2f(x)$

b) $y = f(x + 2)$

5) Using the graph from #2, sketch the following:

a) $y = -f(x)$

b) $y = f(-x) + 1$

6) Using the graph from #3, sketch the following:

a) $y = f\left(\frac{1}{2}x\right)$

b) $y = \frac{1}{2}f(x - 0.4)$

7) Sketch the graph of $y = \sqrt{x}$. Use an x/y-chart if necessary. The graph for $y = \sqrt{x}$ can be referred to as a “parent graph”. Use what you have learned about reflections, translations and stretching to sketch each new graph listed below. Attempt to do so **without** using an x/y-chart.

a) $y = \sqrt{x} + 1$

b) $y = \sqrt{x+4} - 3$

c) $y = -3\sqrt{x}$

d) $y = \sqrt{-x} + 2$

1) period = 4
amplitude = 0.5
 $f(500) = 0$
 $f(-500) = 0$

2) period = 6
amplitude = 1
 $f(500) = 1$
 $f(-500) = -1$
for all graphs, see Mr. Paull

3) period = 0.8
amplitude = 0.5
 $f(500) = 0$
 $f(-500) = 0$

