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Mr. Schlansky

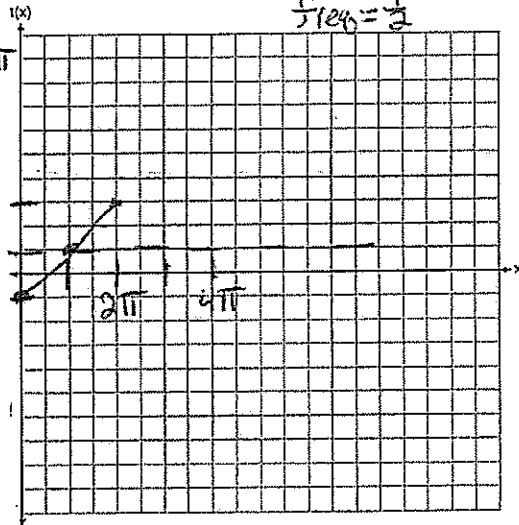
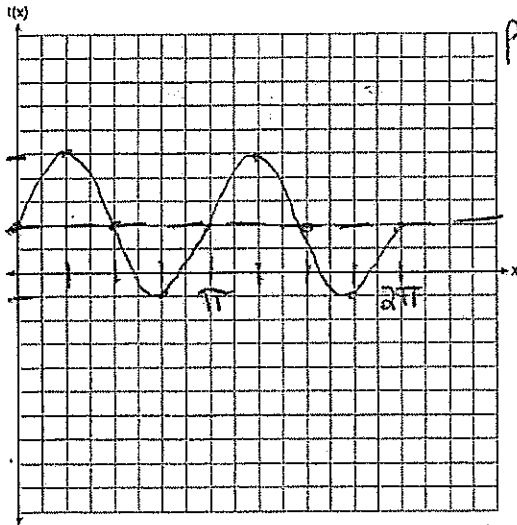
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Algebra II

Graphing Sinusoidal Curves Over Given Domains

Graph the following two functions over the domain $[0, 2\pi]$ on the set of axes below.

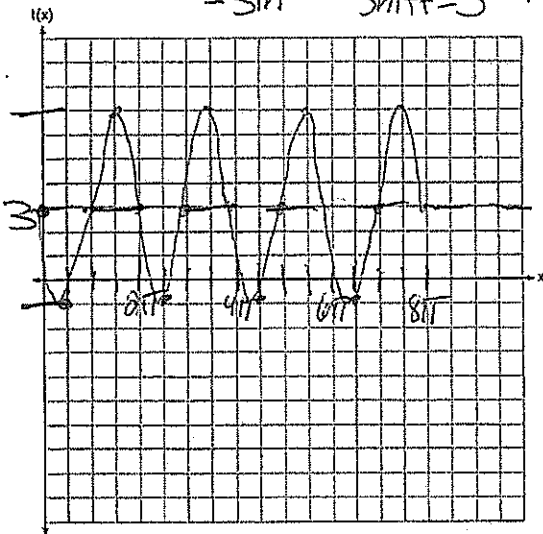
1. $f(x) = 3 \sin(2x) + 2$ amp=3 freq=2
+sin shift=2

2. $y = -2 \cos \frac{1}{2}x + 1$ amp=2 shift=1
-cos freq=1/2
 $P = \frac{2\pi}{f} = \frac{2\pi}{1/2}$



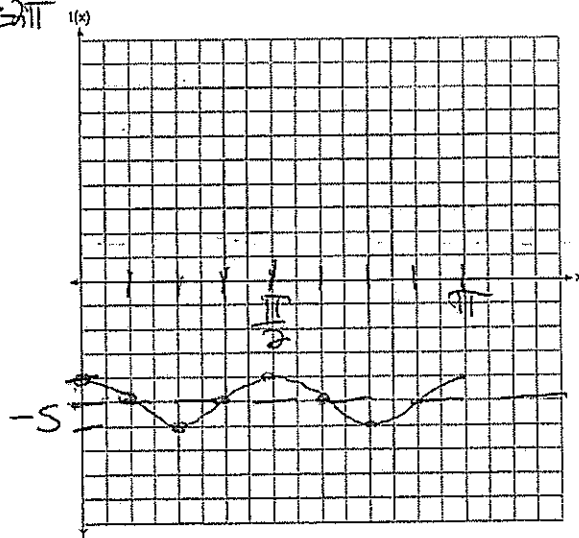
3. On the set of axes below, graph $y = -4 \sin x + 3$ over the domain $[0, 8\pi]$

amp=4 freq=1
-sin shift=3
 $P = \frac{2\pi}{1} = 2\pi$



4. On the set of axes below, graph $y = \cos 4x - 5$ over the domain $[0, \pi]$

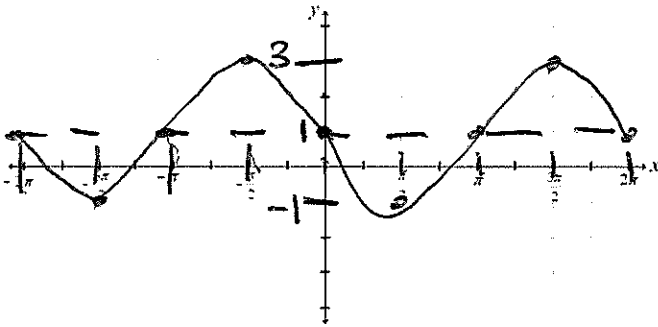
amp=1
+cos
~~f=4~~
shift=-5
 $P = \frac{2\pi}{4} = \frac{\pi}{2}$



Graph the following two functions over the domain $[-2\pi, 2\pi]$ on the set of axes below.

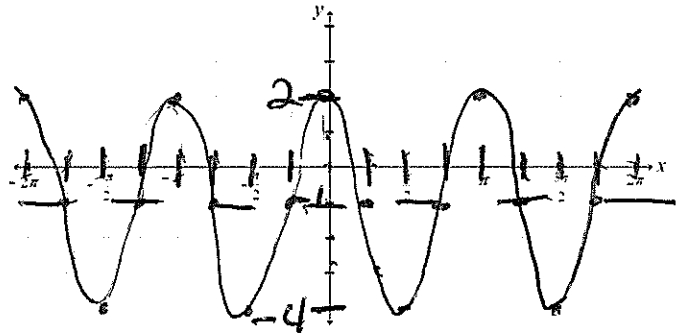
amp sin freq shift
5. $y = -2\sin x + 1$

amp = 2
-sin
freq = 1
shift = 1
 $P = \frac{2\pi}{1} = 2\pi$



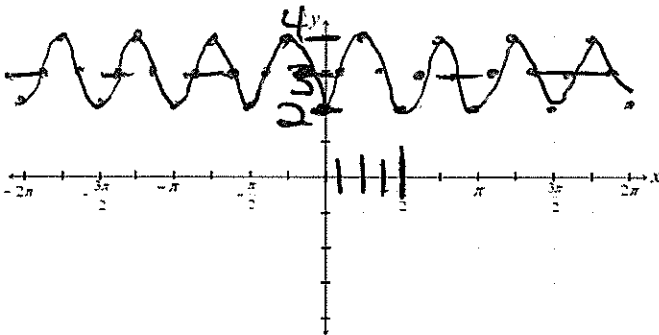
amp sin freq shift
6. $y = 3\cos 2x - 1$

amp = 3
+cos
freq = 2
shift = -1
 $P = \frac{2\pi}{2} = \pi$



amp sin freq shift
7. $y = -\cos 4x + 3$

amp = 1
-cos
freq = 4
shift = 3
 $P = \frac{2\pi}{4} = \frac{\pi}{2}$



amp sin freq shift
8. $y = 2\cos \frac{1}{2}x + 2$

amp = 2
+cos
freq = 1/2
shift = 2

$P = \frac{2\pi}{1/2} = 4\pi$

