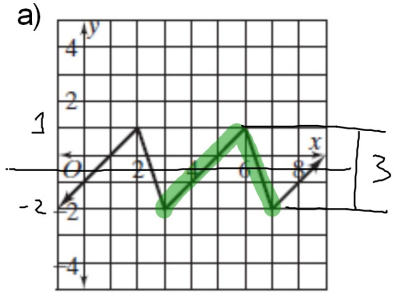
Bellwork Wednesday, March 26, 2014

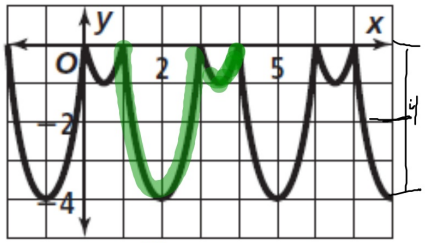
1. For each find the Period, Amplitude, and Eq of the Midline.

a)



P = 4
Amp = 1.5 $\frac{\text{max-min}}{2}$
midline $y = -.5$

b)

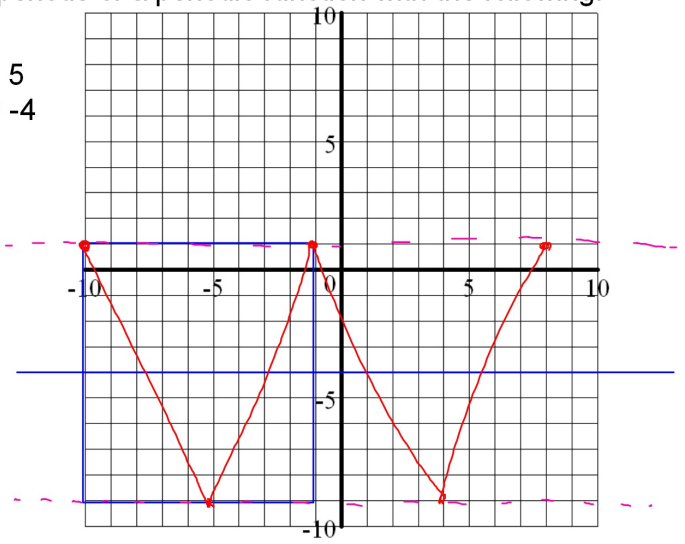


P = 3
Amp = 2
midline $y = -2$

2. Graph 2 periods of a periodic function with the following:

Period = 9
Amplitude = 5
Midline: y = -4

Example is given.



3. Suppose f is a periodic function with a period of 7

Given f(8)=47 and f(20) = -15

(8, 47) (20, −15)

a. Find f(-13)

= 47

f(-13) occurs 3 periods prior to f(8)

b. Find f(48)

= -15

f(48) occurs 4 periods after f(20)

4. A periodic function goes through 10 cycles in 6 minutes. Find the period of the function.

$\frac{6\text{ min}}{10\text{ cycles}} = .6\text{ min/cycle}$ $\frac{360\text{ sec}}{10\text{ cycles}} = 36\text{ sec/cycle}$

5. The period of a periodic function is 8 seconds. How many cycles does it go through in 1 minute?

$\frac{60\text{ sec}}{8\text{ sec}} = 7.5\text{ cycles/sec}$ → Frequency