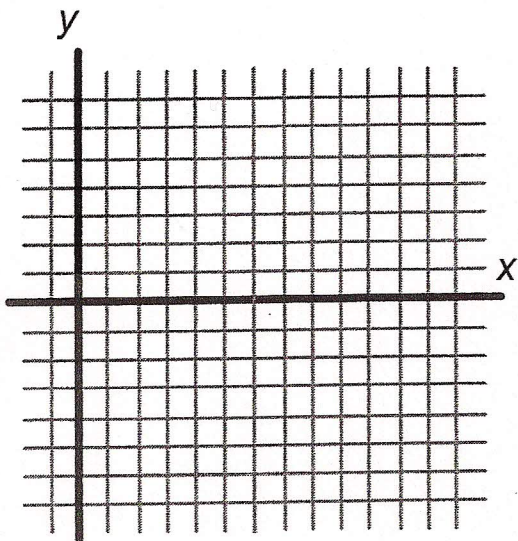


**Pre Calculus
Practice Worksheet * Section: 4.5**

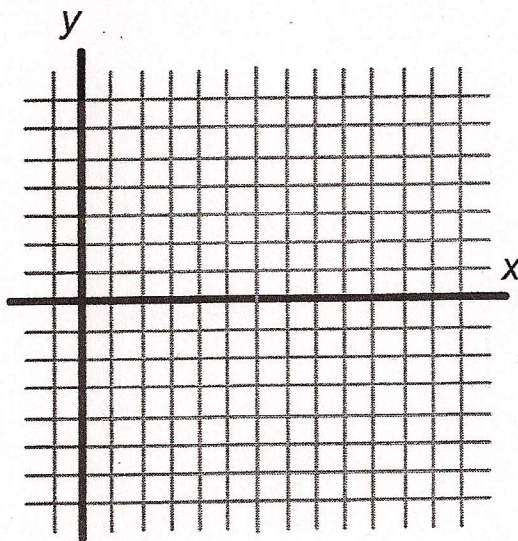
Name: _____ Date: _____ Per: _____ Assignment # _____

I. Determine the amplitude and the period of each of the following functions. Graph one period. Mark both axis clearly.

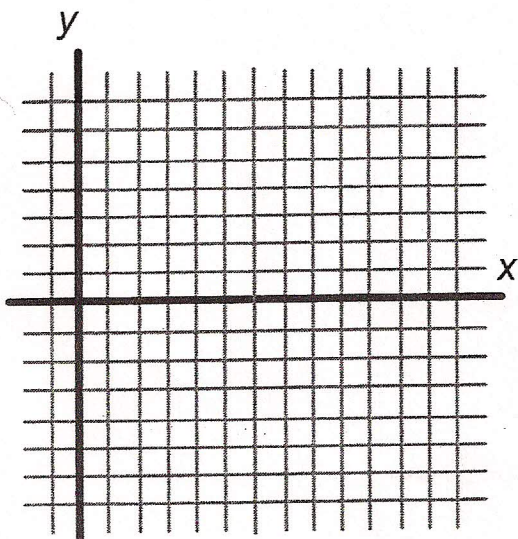
1) $y = \sin 3x$



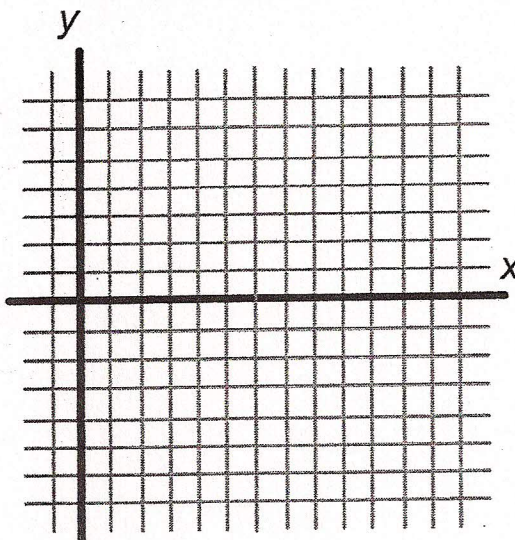
2) $y = 2 \sin 2x$



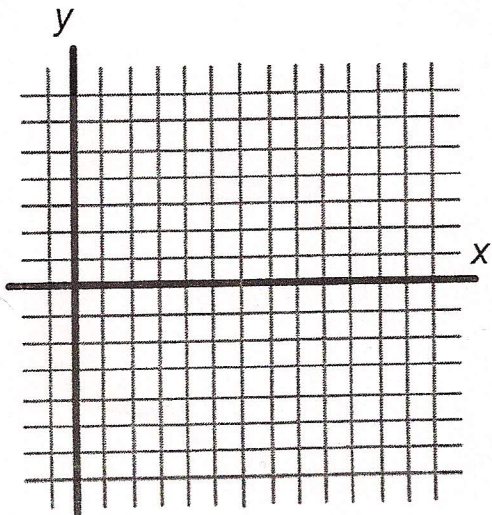
3) $y = -3\cos(3x - \pi) + 1$



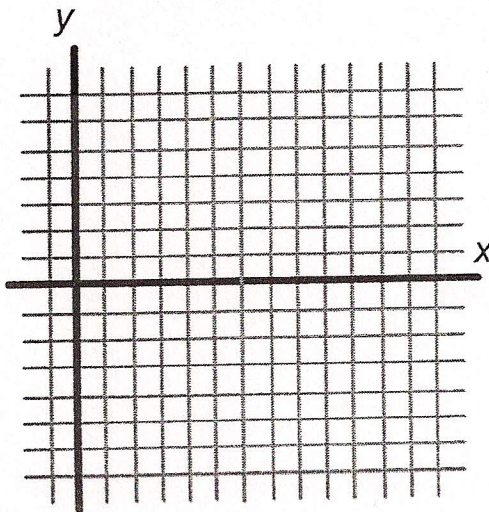
4) $y = -\sin(3x + \frac{\pi}{2}) + 2$



5) $y = 2\cos(4x - \pi) - 2$



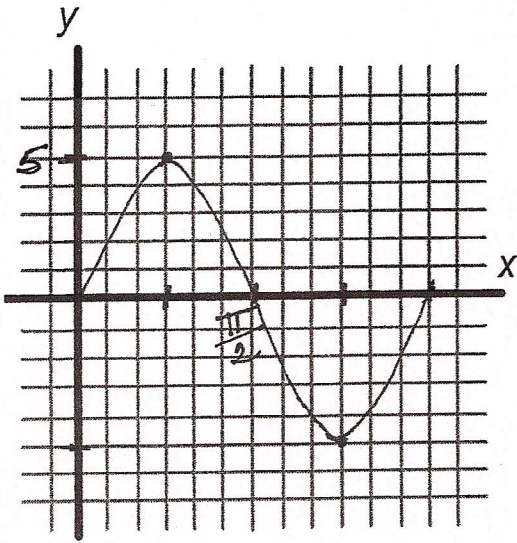
6) $y = \sin(2x + \frac{\pi}{2}) + 4$



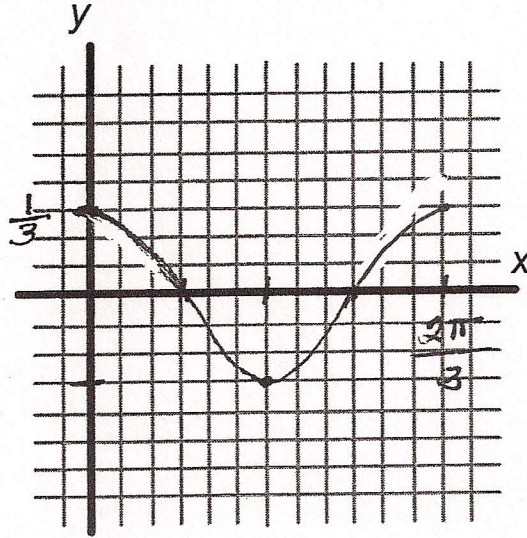
1) amp:
period:
2) amp:
period:
3) amp:
period:
4) amp:
period:
5) amp:
period:
6) amp:
period:

In problems 7 – 11, determine the equation of the graph. Show all the CORRECT work for determining "b". No work = no credit.

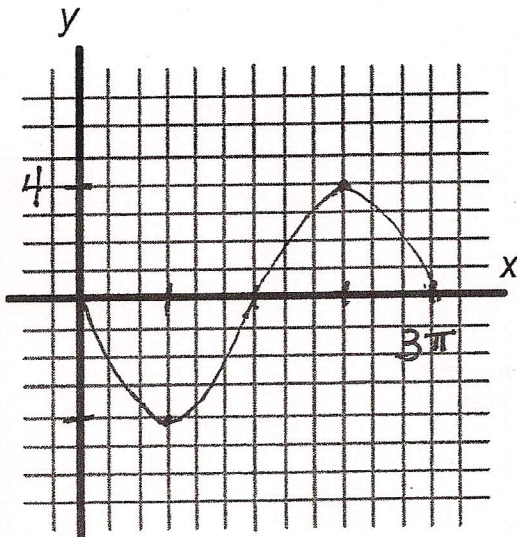
7) (sine curve)



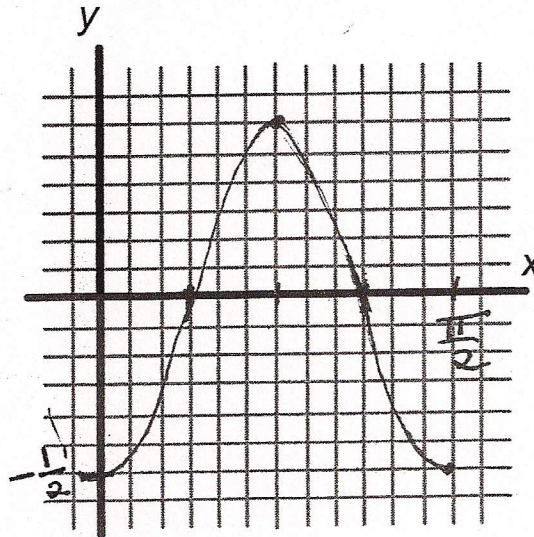
8) (cosine curve)



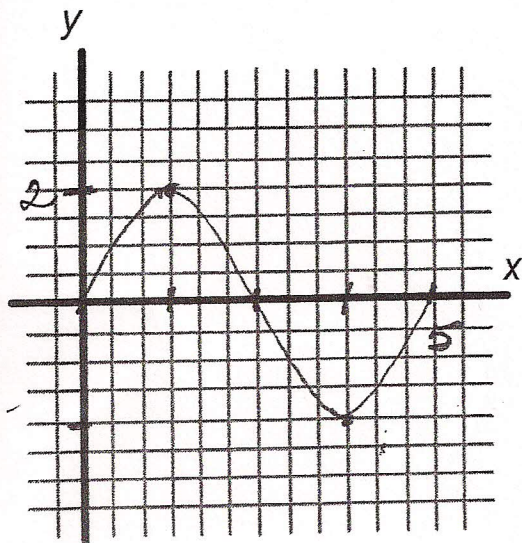
9) (sine curve)



10) (cosine curve)



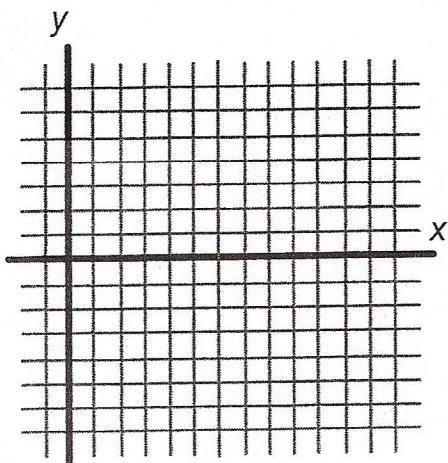
11) (sine curve)



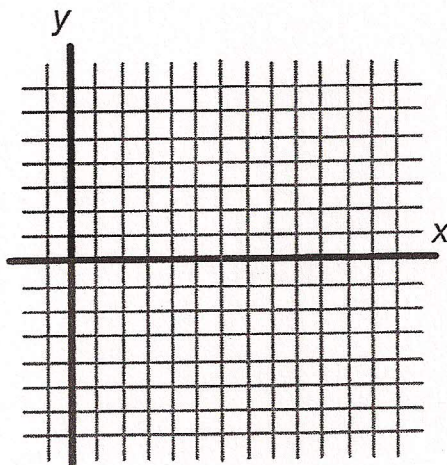
7)
8)
9)
10)
11)

- For 12 – 14 find:
- amplitude
 - value of "b"
 - period
 - phase shift
 - vertical translation
 - reflection? yes/no
 - graph the function.

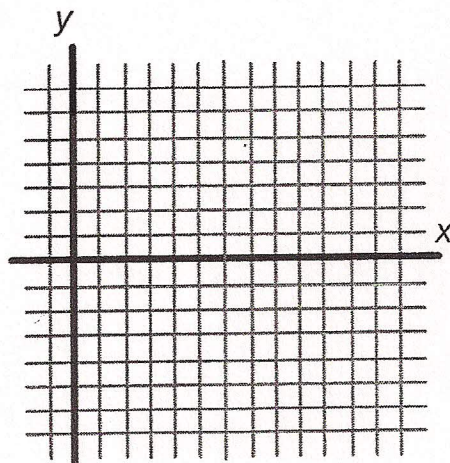
12) $y = 3\sin\left(x + \frac{\pi}{2}\right)$



13) $y = -2\cos(2x - \pi) + 3$



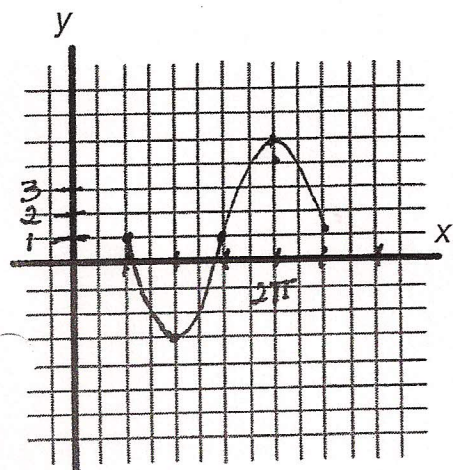
14) $y = 4\sin\left(3x + \frac{\pi}{2}\right) - 2$



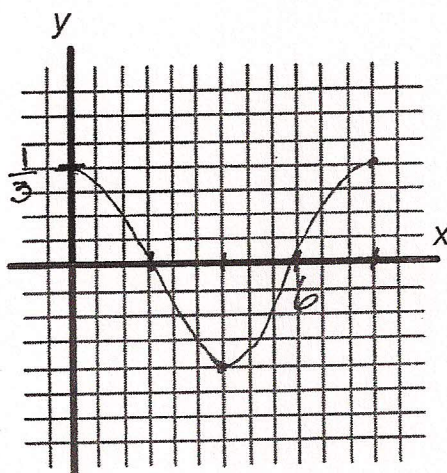
For 15 – 17 fill in the necessary values on the axes and find:

- amplitude
- value of "b"
- period
- phase shift
- vertical translation
- reflection? yes/no
- equation

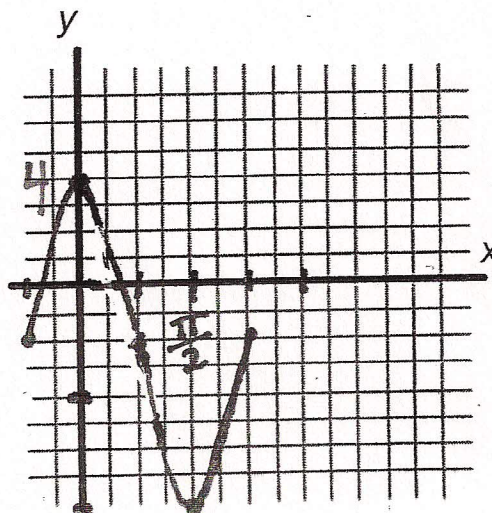
15)



16



17)



Answers for 12-17

12)	13)	14)
a)	a)	a)
b)	b)	b)
c)	c)	c)
d)	d)	d)
e)	e)	e)
f)	f)	f)
15)	16)	17)
a)	a)	a)
b)	b)	b)
c)	c)	c)
d)	d)	d)
e)	e)	e)
f)	f)	f)
g)	g)	g)