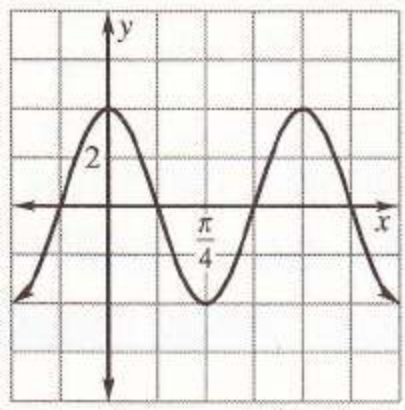
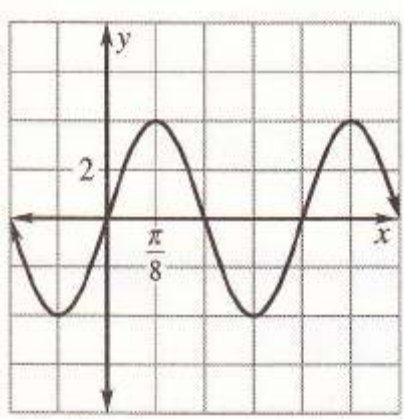
Worksheet 14.1 A Name _____ Assignment # ____

 # 1 – 6: Find the equation of the function.

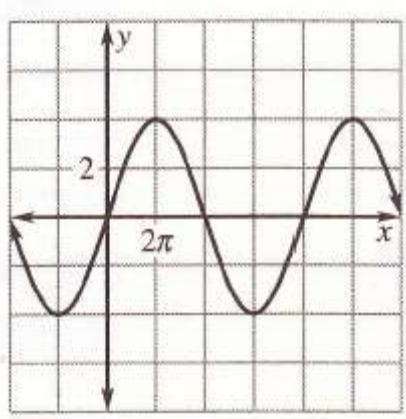
1.



2.



3.



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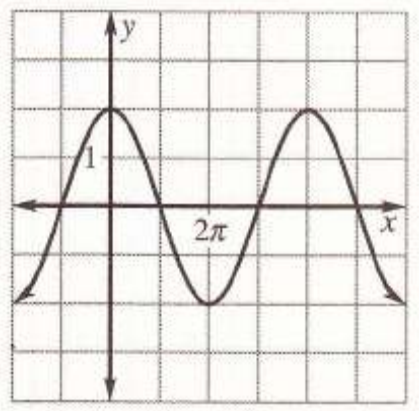
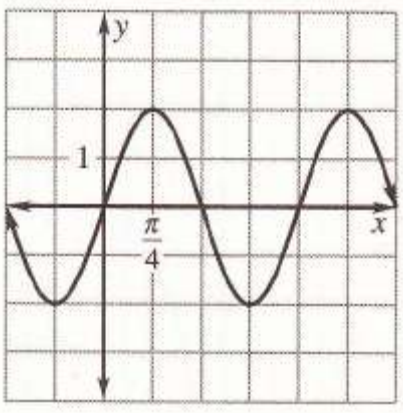
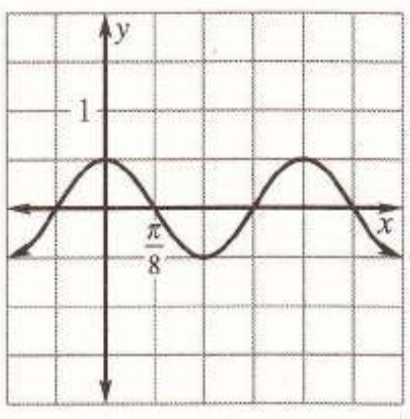


5.

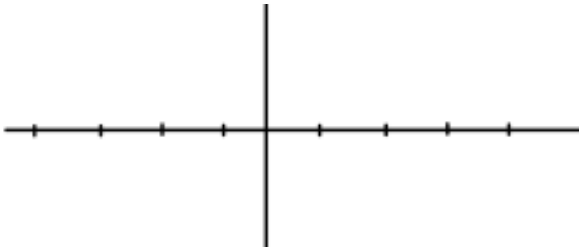


6.

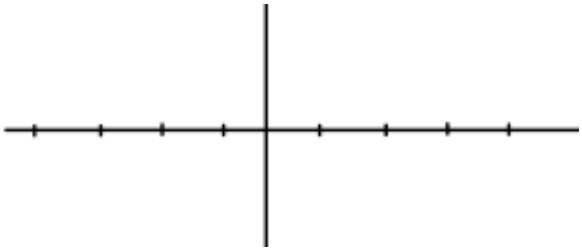


Graph 2 cycles of the functions.

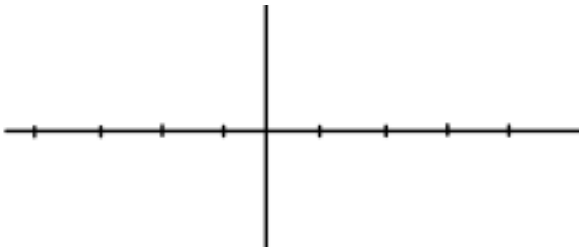
7. $y = \sin 8x$



8. $y = 2\cos 3x$

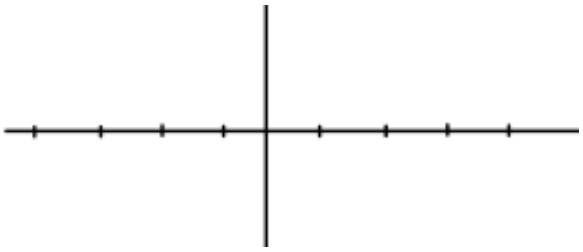


9. $y = \frac{1}{3}\sin \pi x$

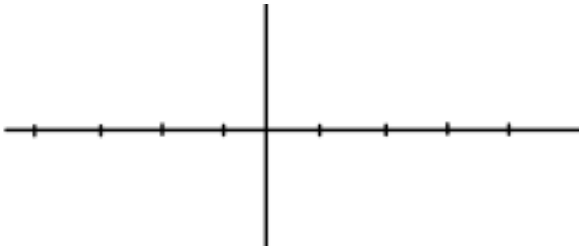


10. $y = -\frac{1}{2}\cos \frac{1}{4}\pi x$

11. $y = -3\sin \frac{1}{3}x$



12. $y = -2\cos \frac{1}{2}x$



13. $y = \frac{1}{4}\sin \frac{1}{2}\pi x$

14. $y = 3\cos \frac{1}{2}x$

Answers:

1. y = 4 cos 4x

2. y = 4 sin 4x

3. y = 4 sin ¼ x

4. y = 2 cos ½ x

5. y = 2 sin 2x

6. y = ½ cos 4x

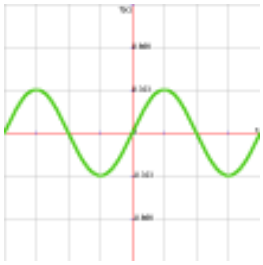
7. Scale $\pi/16$

$(0,0);\left(\frac{\pi}{16},1\right);\left(\frac{\pi}{8},0\right);$
$\left(\frac{3\pi}{16},-1\right);\left(\frac{\pi}{4},0\right)$

8. Scale $\pi/6$

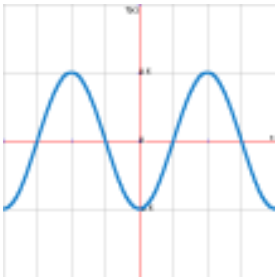
$(0,2);\left(\frac{\pi}{6},0\right);\left(\frac{2\pi}{3},-2\right)$
$\left(\frac{\pi}{2},0\right);\left(\frac{2\pi}{3},2\right)$

9.Scale : ½



$(0,0);\left(\frac{1}{2},\frac{1}{3}\right);(1,0)$
$(1.5,-0.5);(2,0)$

10. Scale 2



$\left(0,-\frac{1}{2}\right);(2,0);\left(4,\frac{1}{2}\right)$
$(6,0);\left(8,\frac{1}{2}\right)$

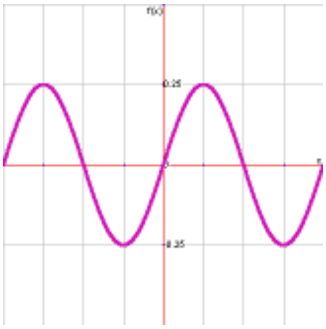
11. Scale 1.5 π

$(0,0);(1.5\pi,-3);(3\pi,0)$
$(4,5\pi,3);(6\pi,0)$

12. Scale: π

$(0,-2);(\pi,0);(2\pi,2)$
$(3\pi,0);(4\pi,-2)$

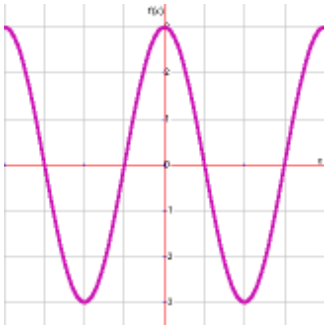
13. Scale: 1



(0,0); (1, ¼); (2,0)

(3, - ¼); (4,0)

14. Scale π



$(0,3);(\pi,0);(2\pi,-3)$
$(3\pi,0);(4\pi,3)$