Section 2.5 WS **Name** _____

Determine whether the graph is an even function, odd function, or neither.

1. $g(x) = x^2 - 7$

2. $F(x) = x^5 + x^3$

3. $H(x) = 3|x|$

4. $f(x) = 1$

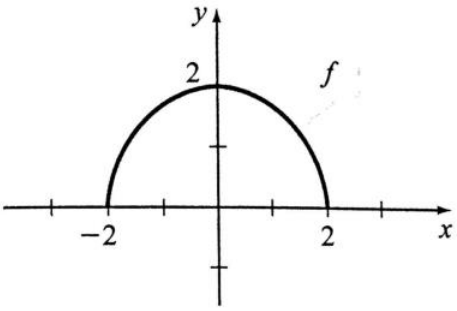
5. $g(x) = \sqrt{x^2 + 4}$

6. $h(x) = 16x^2$

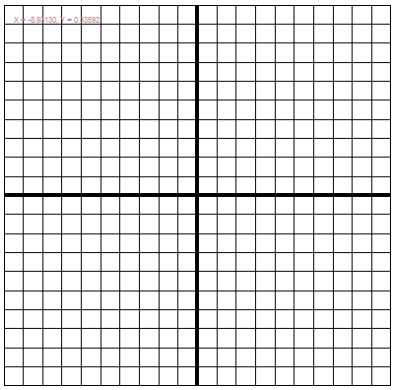
7. $g(x) = 4x^3 + 3x$

8. $f(x) = 2x^2 + 3x$

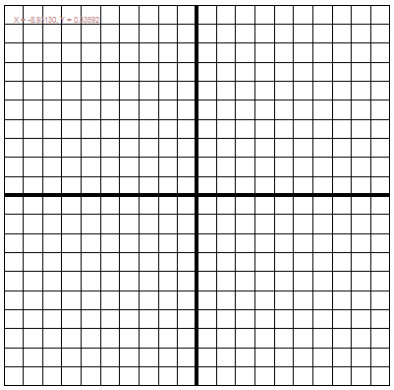
9. Use the graph of f to sketch the graph of



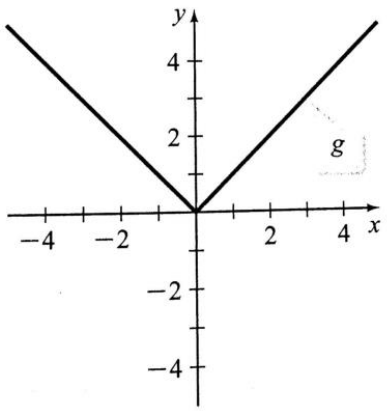
a. $y = f(x) + 3$



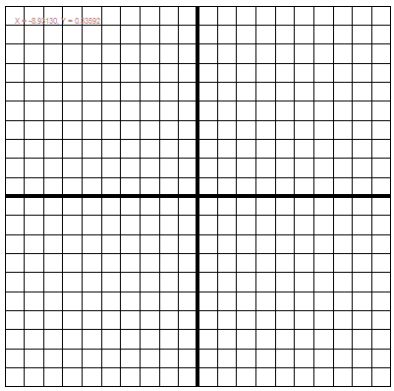
b. $y = f(x - 3)$



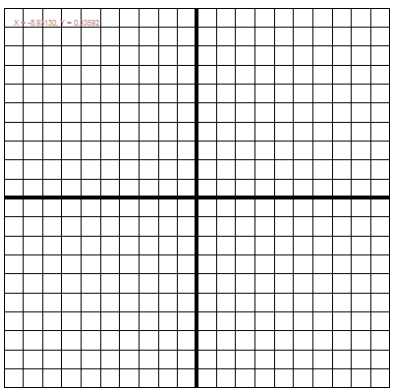
10. Use the graph of g to sketch the graph of



a. $y = g(x) - 2$



b. $y = g(x - 3)$



11. Let f be a function such that $f(-2)=5,\ f(0)=-2,\ f(1)=0$. Give the coordinates of three points on the graph of:

a. $y=f(x+3)$ b. $y=f(x)+1$

12. Let g be a function such that $g(4)=-5,$ and $f(-3)=2.$. Give the coordinates of the two points on the graph of:

a. $y=-g(x)$ b. $y=g(-x)$

Write the equation of a line in slope-intercept form, that satisfies the given conditions.

13. Find the equation of the line whose graph is parallel to the graph of $2x-3y=7$ and passes through the point $P(-1,-6)$.

14. Find the equation of the line whose graph is perpendicular to the graph of $-3x+2y=10$ and passes through the point $P(3,-3)$.

Write the quadratic function in vertex form.

15. $g(x)=-x^2-6x-2$ 16. $f(x)=2x^2-8x+23$ 17. $h(x)=x^2+10x+17$

Find the maximum or minimum value of the function. State whether the value is a minimum or maximum.

18. $f(x)=x^2+12x+3$ 19. $h(x)=-x^2+14x-14$ 20. $g(x)=2x^2+19x+7$