Adv Alg

Name: _____
Date: _____ Pd _____

INVESTIGATING TRANSFORMATIONS II

1. Fill out the tables below for each function, and then graph each function on the same graph.

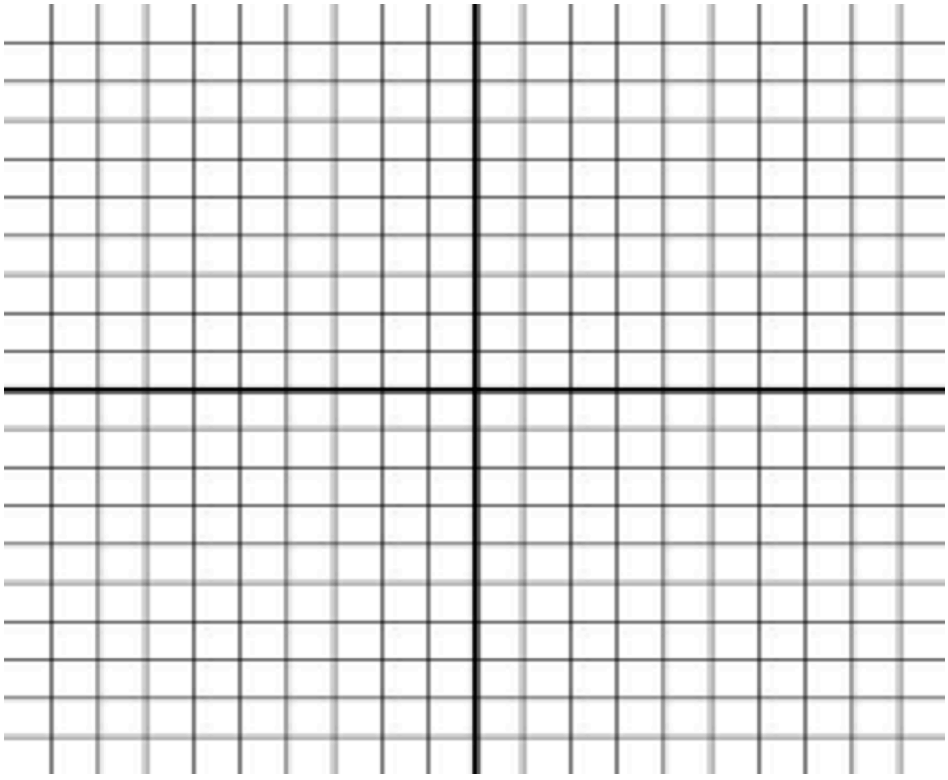
a. $f(x) = x$ b. $g(x) = 2x$ c. $h(x) = \frac{1}{2}x$ d. $j(x) = -2x$

x	f(x)
-2	
-1	
0	
1	
2	

x	g(x)
-2	
-1	
0	
1	
2	

x	h(x)
-2	
-1	
0	
1	
2	

x	j(x)
-2	
-1	
0	
1	
2	



Consider the following questions given that f(x) is the parent function.

2. How did the 2 change the graph of g(x) from f(x)?

3. How did the ½ change the graph of h(x) from f(x)?

4. How did the -2 change the graph of j(x) from f(x)?

5. Fill out the tables below for each function, and then graph each function on the same graph. Consider the values in the tables when selecting a scale for the graphs

a. $f(x) = x^2$

x	f(x)
-2	
-1	
0	
1	
2	

b. $g(x) = 2x^2$

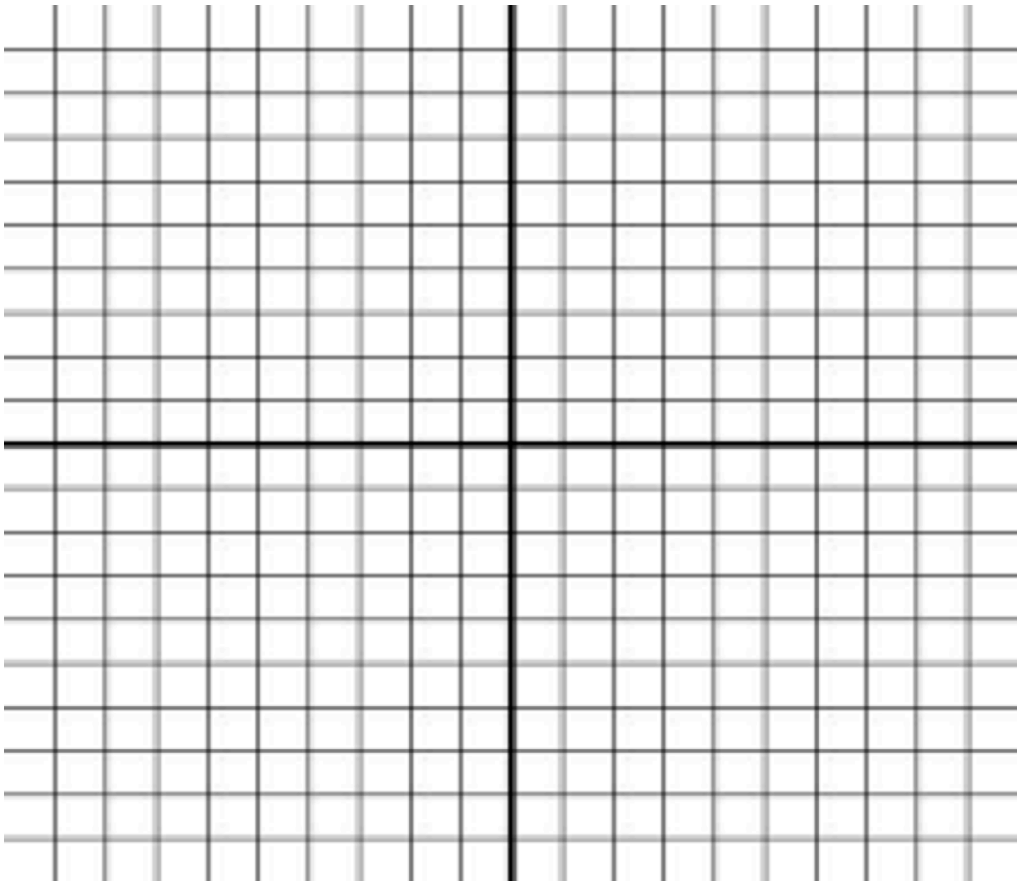
x	g(x)
-2	
-1	
0	
1	
2	

c. $h(x) = \frac{1}{2} x^2$

x	h(x)
-2	
-1	
0	
1	
2	

d. $j(x) = -2x^2$

x	j(x)
-2	
-1	
0	
1	
2	



Consider the following questions about the graphs above given that f(x) is the parent function.

6. How did the 2 change the graph of g(x) from f(x)?

7. How did the ½ change the graph of h(x) from f(x)?

8. How did the -2 change the graph of j(x) from f(x)?

9. Fill out the tables below for each function, and then graph each function on the same graph. Consider the values in the tables when selecting a scale for the graphs.

a. $f(x) = x^3$

x	f(x)
-2	
-1	
0	
1	
2	

b. $g(x) = 2x^3$

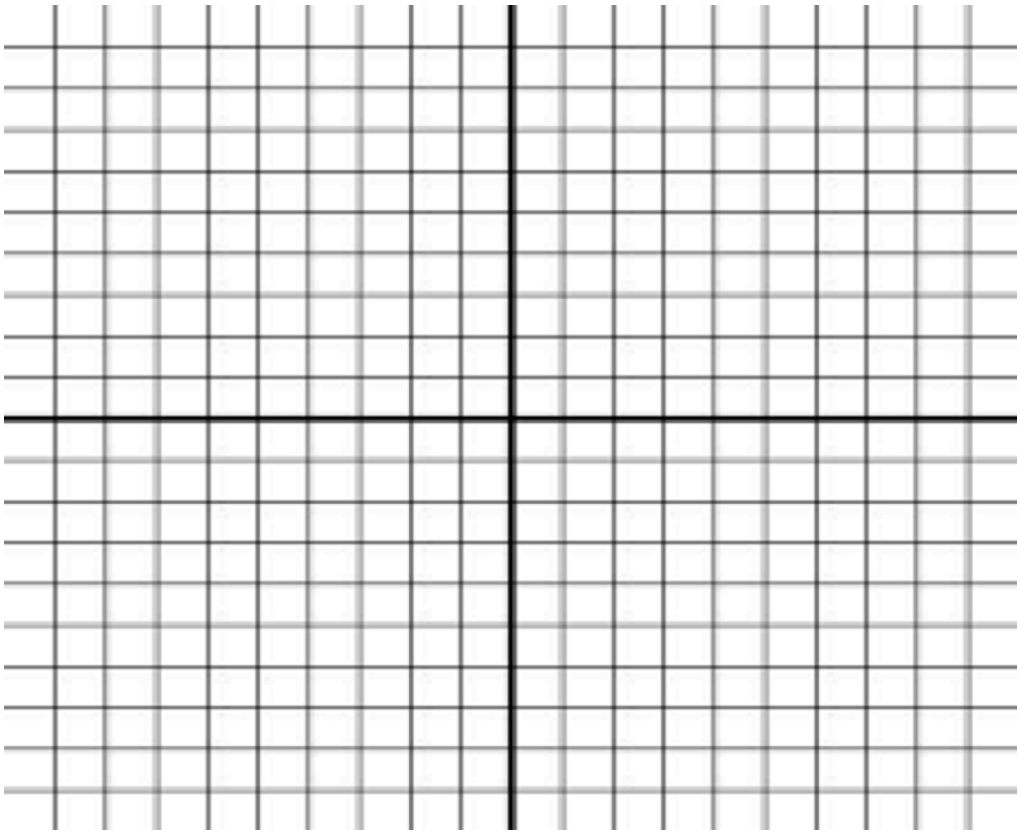
x	g(x)
-2	
-1	
0	
1	
2	

c. $h(x) = \frac{1}{2} x^3$

x	h(x)
-2	
-1	
0	
1	
2	

d. $j(x) = -2x^3$

x	j(x)
-2	
-1	
0	
1	
2	



Consider the following questions about the graphs above given that f(x) is the parent function.

10. How did the 2 change the graph of g(x) from f(x)?

11. How did the ½ change the graph of h(x) from f(x)?

12. How did the -2 change the graph of j(x) from f(x)?

13. Fill out the tables below for each function, and then graph each function on the same graph. Consider the values in the tables when selecting a scale for the graphs.

a. $f(x) = \sqrt{x}$

x	f(x)
-1	
0	
1	
4	
9	

b. $g(x) = 2\sqrt{x}$

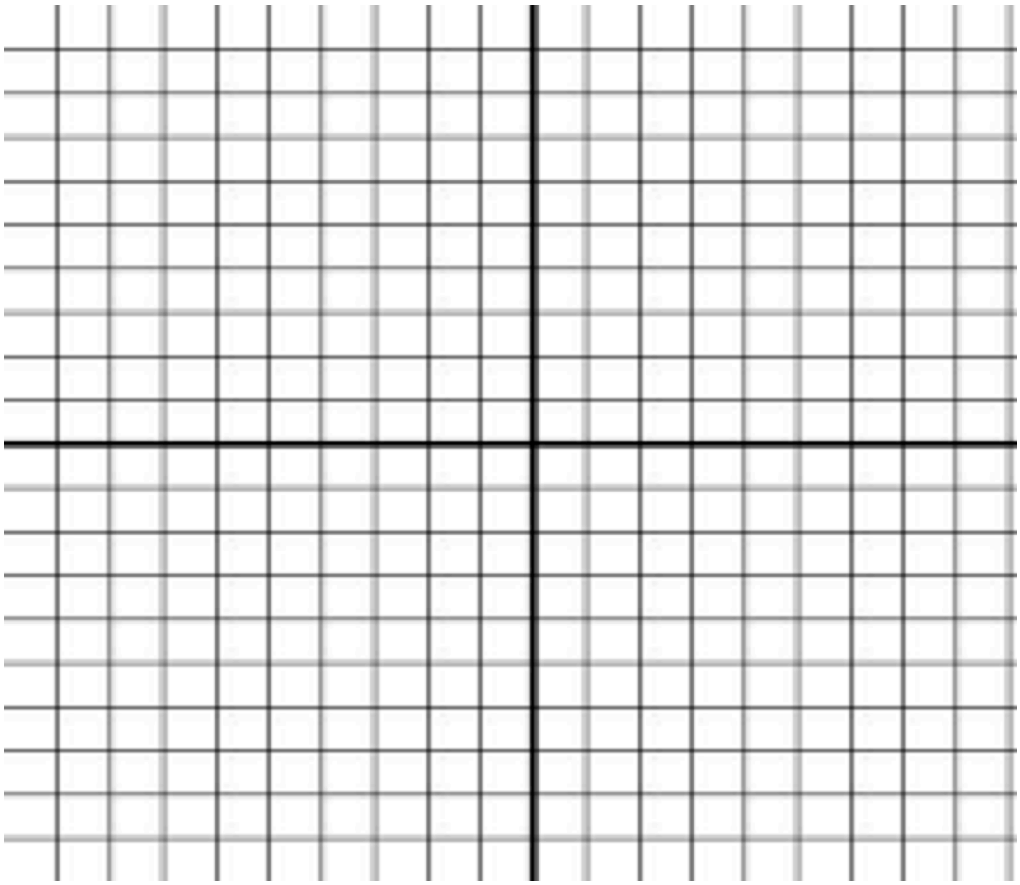
x	g(x)
-1	
0	
1	
4	
9	

c. $h(x) = \frac{1}{2}\sqrt{x}$

x	h(x)
0	
1	
4	
9	
16	

d. $j(x) = -2\sqrt{x}$

x	j(x)
0	
1	
4	
9	
16	



Consider the following questions about the graphs above given that f(x) is the parent function.

14. How did the 2 change the graph of g(x) from f(x)?

15. How did the ½ change the graph of h(x) from f(x)?

16. How did the -2 change the graph of j(x) from f(x)?