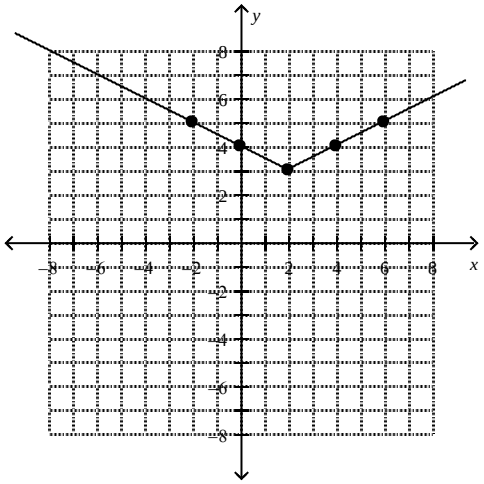
Name _____ Date _____

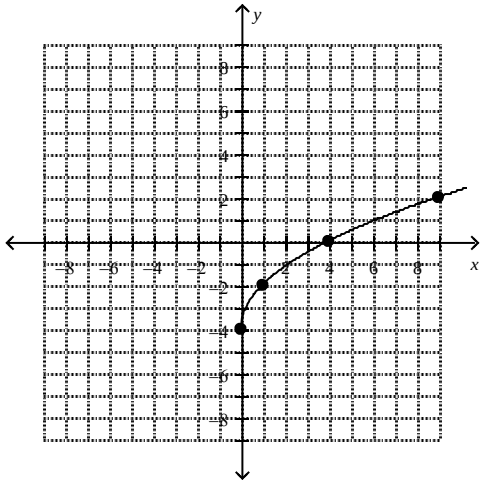
Inverse Functions Homework

#1-2: Find the inverse of each graph and graph it on the same grid using a different color.

1.

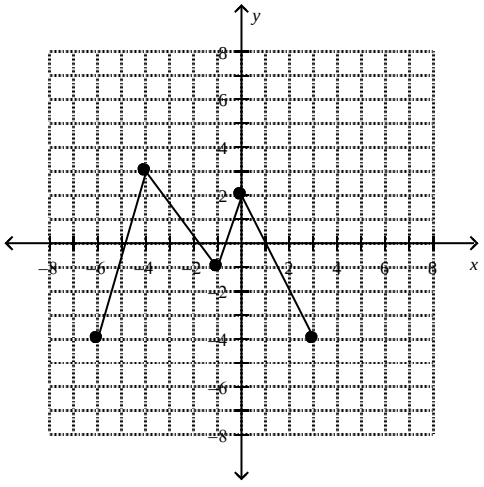


2.

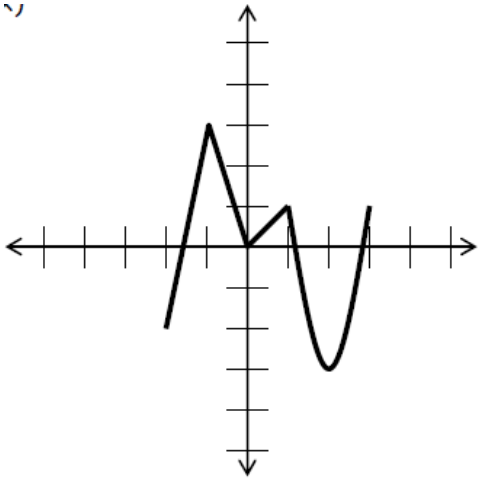


#3-4: Graph the inverse of each function below on the same grid in a different color. Is the inverse a function? Why or why not? Find $g^{-1}(-4)$, $g^{-1}(2)$ and $g^{-1}(3)$.

3.



4.



Find the inverse of the following functions.

5. $f(x) = \frac{1}{2}x + 1$

6. $g(x) = 4(x - 3)$

7. $g(x) = \frac{x-4}{5}$

8. $h(x) = -3x + 2$

9. $f(x) = -0.25x - 1$

Determine whether the following functions are inverses of each other. You will need to use composite functions, $f(g(x))$ and $g(f(x))$.

10. $f(x) = 2x + 6$ **and** $g(x) = \frac{x-6}{2}$

11. $h(x) = \frac{1}{3}x - 7$ **and** $k(x) = 3x + 7$

For each of the following functions –

a) find the inverse

b) find the domain and range of the inverse

c) determine whether the inverse is a function

d) then evaluate it for $f^{-1}(-4), f(4)$, and $f^{-1}(2)$.

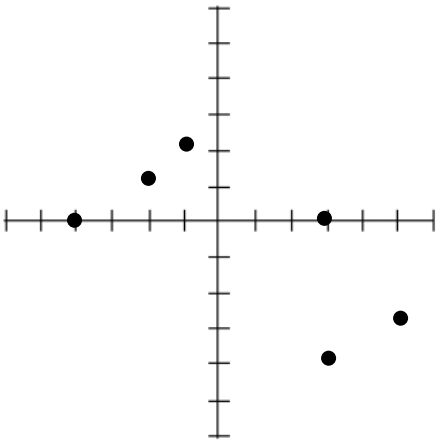
12.

x	*f(x)*
1	2
2	1
3	0
4	1
5	2

13.

p	*f(p)*
-1	-7
0	-4
2	2
3	5
4	8

14.



15.