Name: _____

7.2 – INVERSE FUNCTIONS

Past due on: _____ Period: _____

Problems 1 – 4, f and g are defined by the following tables. Use the tables to evaluate each composite function.

1. $f^{-1}(4)$
2. $g^{-1}(2)$
3. $f^{-1}(-1)$
4. $g^{-1}(1)$

x	$f(x)$
-1	1
0	4
1	5
2	-1

x	$g(x)$
-1	0
1	1
4	2
10	-1

Given the function $f(x) = 4x - 2$, determine each of the following:

5. $f^{-1}(?) = 4$
6. $f^{-1}(?) = 0$
7. $f^{-1}(-2) = ?$
8. $f^{-1}(8) = ?$

9. The table gives values of an invertible function f.

x	0	1	2	3	4
$f(x)$	-1	0	1	3	5

Evaluate the following quantities:

a. $f^{-1}(1) = ?$ *b.* $f^{-1}(?) = 1$

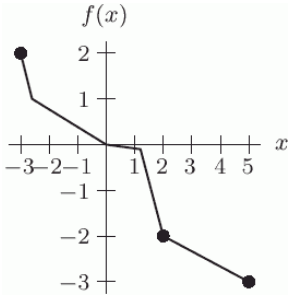
10. Let f be given by the graph. Evaluate the following quantities:

a. $f(-3)$

b. $f^{-1}(2)$

c. $f(2)$

d. $f^{-1}(-3)$



For the given function, $y = f(x)$, find a formula for its inverse function, $f^{-1}(y)$.

11. $y = 2x + 3$
12. $y = \frac{7}{x} - 3$
13. $y = \frac{2}{3}x + 1$
14. $y = \sqrt{x+3}$
15. $y = \sqrt[3]{x+5}$
16. $y = (2x-3)^2$