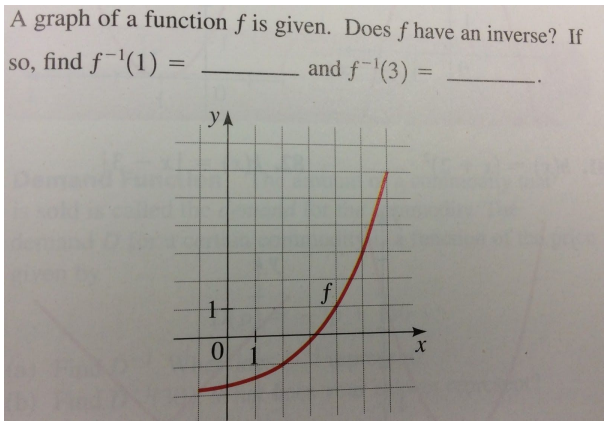
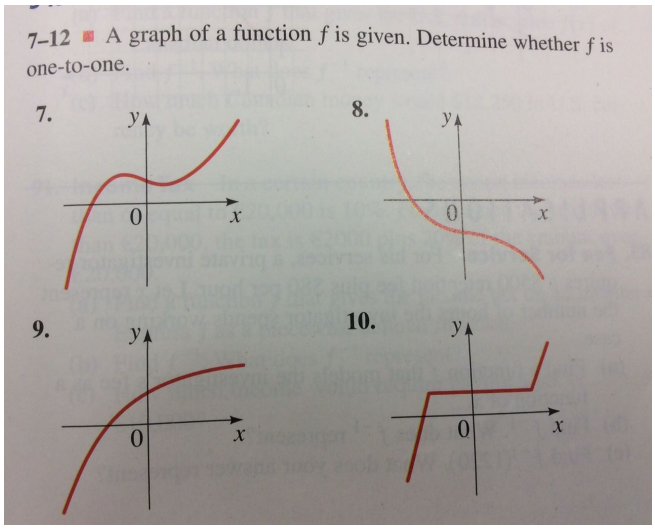
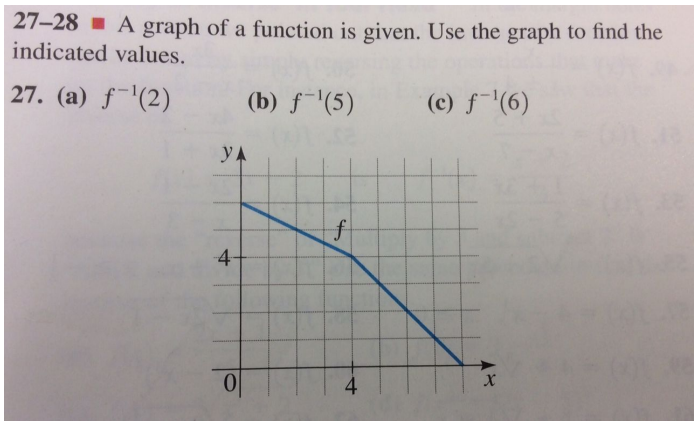
Math 1050 A2.7 Inverse	Name
1.  $f^{-1}(1) =$ $f^{-1}(3) =$ Make a table of the above graph. Then create an inverse table. Graph the inverse function.	2. 
3.  $a. f^{-1}(2) =$ $b. f^{-1}(3) =$ $c. f^{-1}(6) =$ Make a table of the above graph. Then create an inverse table. Graph the inverse function.	4. Determine if the following are one-to-one. $a.\ f(x) = x^3 + 8$ $b.\ f(x) = x^2 - 2x$ $c.\ f(x) = \frac{1}{x}$ $d.\ f(x) = \lvert x \rvert$
5. Use the inverse property to show that f and g are inverses of each other. $f(x) = 3 - 4x$ $g(x) = \frac{3-x}{4}$	6. Use the inverse property to show that f and g are inverses of each other. $f(x) = x^2 - 4\ ,\ x \geq 0$ $g(x) = \sqrt{x+4},\ x \geq 4$

7. Use the inverse property to show that f and g are inverses of each other.

$f(x) = \frac{1}{x-1}$ $\quad$ $g(x) = \frac{1}{x} + 1$

8. Use the inverse property to show that f and g are inverses of each other.

$f(x) = \frac{x+2}{x-2}$ $\quad$ $g(x) = \frac{2x+2}{x-1}$

9. Find the inverse.

$f(x) = 5 - 4x^3$

10. Find the inverse.

$f(x) = \frac{x}{x+4}$

11. Find the inverse.

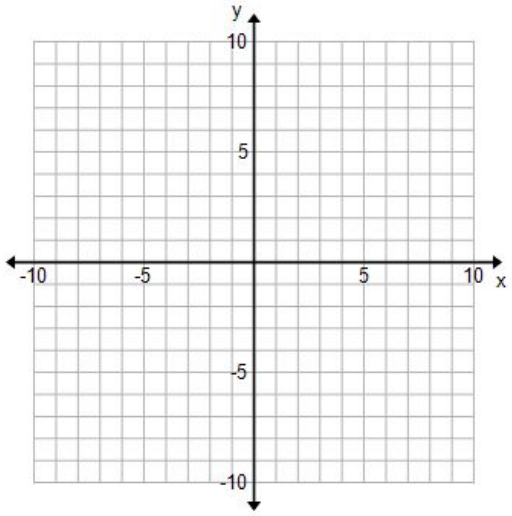
$f(x) = \frac{2x-1}{x-3}$

12. Find the inverse.

$f(x) = 1 + \sqrt{1+x}$

13. Sketch the graph of $f(x) = 1 - x^3$

Then sketch the graph of the inverse graph.



14. If $f(x) = x^2 + x + 1$ *and* $g(x) = x - 3$ find the following.

a) $f \circ g$

b) $(g(f(-2))$

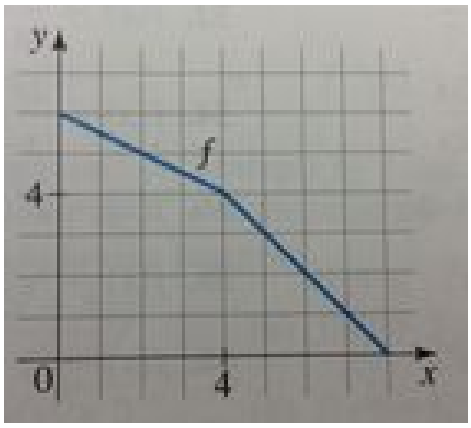
c) $g \circ f$

d) $f - g$

e) $(f(g(-2))$

f) fg

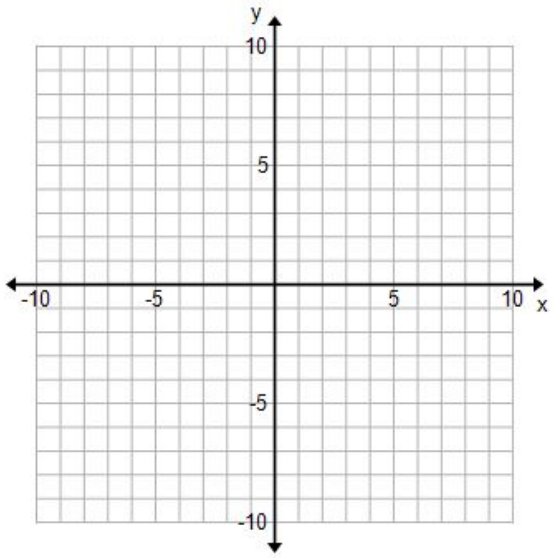
15.



Graph and label the following on the either of the 2 graphs provided.

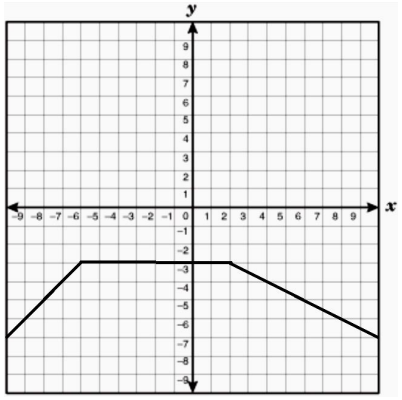
a. $-f(-x)$ *b.* $4-f(x)$

c. $\frac{1}{2}f(x+2)$ *d.* $f(2x)$



16. Find the average rate of change of $f(x)=(x+1)^2;\ x = a,\ x = a+h$

17. Find the equations of the graph below.



_____when _____

_____when _____

_____when _____

18.

A graph of a function f is given.

(a) Find $f(-2)$ and $f(2)$.

(b) Find the net change in the value of f from $x = -2$ to $x = 2$.

(c) Find the domain and range of f.

(d) On what intervals is f increasing? On what intervals is f decreasing?

(e) What are the local maximum values of f?

(f) Is f one-to-one?