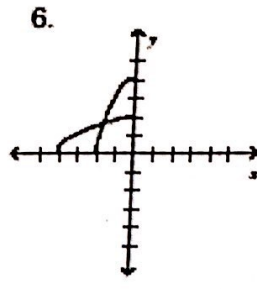
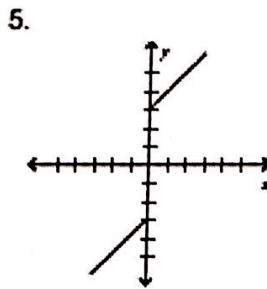
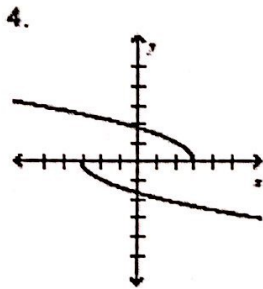
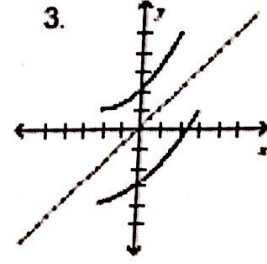
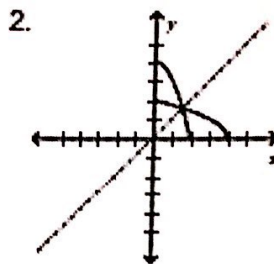
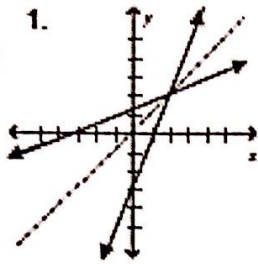


Honors Math 3

Graphs of Inverse Functions

Name _____

Which of the following pairs of functions graphed below are inverses of each other?

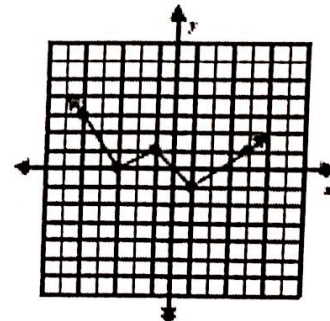
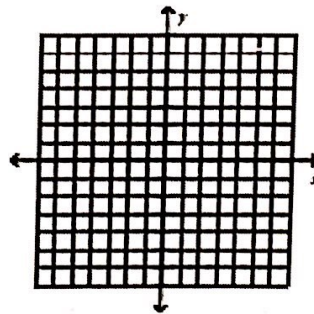
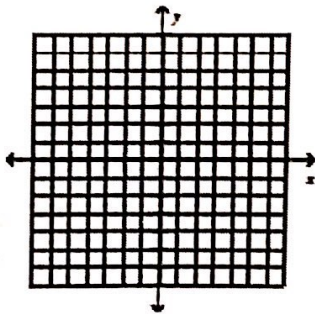


Graph each function and its inverse. Tell if the inverse is also a function.

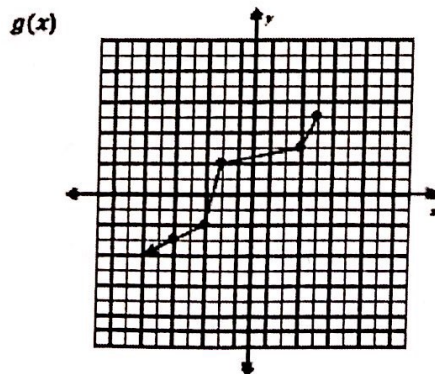
7. $f(x) = 3x + 2$

8. $f(x) = x^2 - 2$

9. f as graphed.



10. Using the graph of $g(x)$ below, find the following:



10. $g^{-1}(-3) = \underline{\hspace{2cm}}$

11. $g(4) = \underline{\hspace{2cm}}$

12. $g^{-1}(3) = \underline{\hspace{2cm}}$

13. $g^{-1}(-2) = \underline{\hspace{2cm}}$

14. $g^{-1}(-3) = \underline{\hspace{2cm}}$

Function Inverses

Date _____ Period _____

State if the given functions are inverses.

$$1) \quad g(x) = 4 - \frac{3}{2}x$$
$$f(x) = \frac{1}{2}x + \frac{3}{2}$$

$$2) \quad g(n) = \frac{-12 - 2n}{3}$$
$$f(n) = \frac{-5 + 6n}{5}$$

$$3) \quad f(n) = \frac{-16 + n}{4}$$
$$g(n) = 4n + 16$$

$$4) \quad f(x) = -\frac{4}{7}x - \frac{16}{7}$$
$$g(x) = \frac{3}{2}x - \frac{3}{2}$$

$$5) \quad f(n) = -(n+1)^3$$
$$g(n) = 3 + n^3$$

$$6) \quad f(n) = 2(n-2)^3$$
$$g(n) = \frac{4 + \sqrt[3]{4n}}{2}$$

$$7) \quad f(x) = \frac{4}{-x-2} + 2$$
$$h(x) = -\frac{1}{x+3}$$

$$8) \quad g(x) = -\frac{2}{x} - 1$$
$$f(x) = -\frac{2}{x+1}$$

Find the inverse of each function.

$$9) \quad h(x) = \sqrt[3]{x} - 3$$

$$10) \quad g(x) = \frac{1}{x} - 2$$

$$11) \quad h(x) = 2x^3 + 3$$

$$12) \quad g(x) = -4x + 1$$

$$13) g(x) = \frac{7x+18}{2}$$

$$14) f(x) = \sqrt{x-2} + 3$$

15)

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

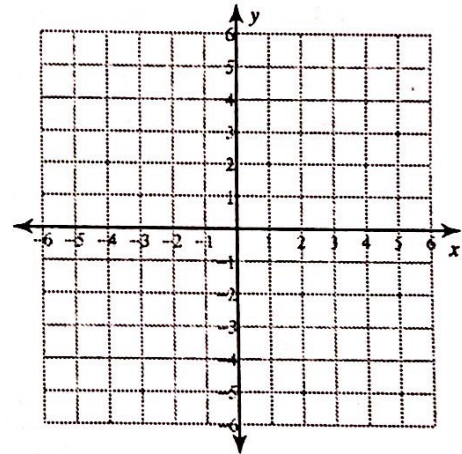
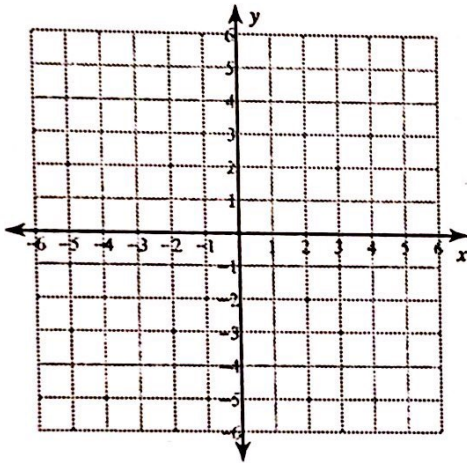
16)

$$f(x) = x^2 + 6x - 3$$

Find the inverse of each function. Then graph the function and its inverse.

$$17) f(x) = -1 - \frac{1}{5}x$$

$$18) g(x) = \sqrt{x} + 1$$



$$19) f(x) = (x+2)^2 - 1$$

$$20) g(x) = \frac{-x-5}{3}$$

