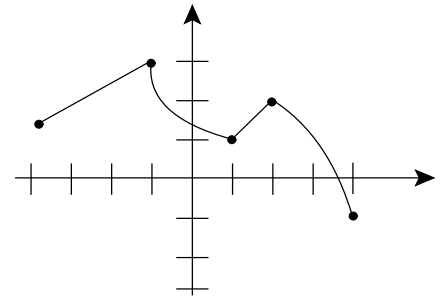


For problems 1-4, refer to figure on the right.



1. The domain of $h(x)$ is _____
2. The range of $h(x)$ is _____
3. $h(-1) =$ _____, $h(-4) =$ _____, $h(4) =$ _____ $h(0) =$ _____
4. For what value(s) of x is $h(x) = 2$ _____

For problems 5-10, let $f(x) = \sqrt{x-2}$ and $g(x) = x^2 + 4$.

5. The domain of $f(x)$ is _____
6. The range of $f(x)$ is _____
7. The domain of $g(x)$ is _____
8. The range of $g(x)$ is _____
9. Determine whether these functions are odd or even.
10. $g(-5) =$ _____, $g(3) =$ _____, $g(0) =$ _____, $f(2) =$ _____, $f(18) =$ _____, $f(4) =$ _____
11. Determine whether the functions $f(x) = -x^2$, $g(x) = |x|$, $h(x) = x^3$, and $F(x) = -4x^3 + 2x$ are odd or even.
 Find: $F(0)$ _____ $f(0)$ _____ $f(1)$ _____ $h(1)$ _____ $g(-1) =$ _____

12. Sketch the graph of the following:

- a) $y = -(x-2)^2 + 1$ b) $f(x) = 0.5(x+1)^2 - 2$ c) $f(x) = \sqrt{x+3} - 2$
 d) $f(x) = 2(x+3)^2 + 1$ e) $y = |x-2| - 3$

13. Let $f(x) = 2x - 3$. Find f^{-1} , the inverse of the function f . Graph both functions on the same coordinate axes.
14. Sketch the graph of $f(x) = x^2, x \leq 0$. Can you graph f^{-1} ? What is the function f^{-1} ?

Which of the following are functions? Which are 1-1 functions? Sketch the graph of both, the relation and its inverse.

15. $f = \{(1, -2), (2, 0), (3, -2)\}$
16. $y = x^2 + 4$
17. $2x + y = -1$
18. $y = \sqrt[3]{x}$