

1. Given that $f(2) = -3$, find $f^{-1}(-3)$.

2. Given that f is an odd function with $f(-2) = 5$, find $f^{-1}(-5)$.

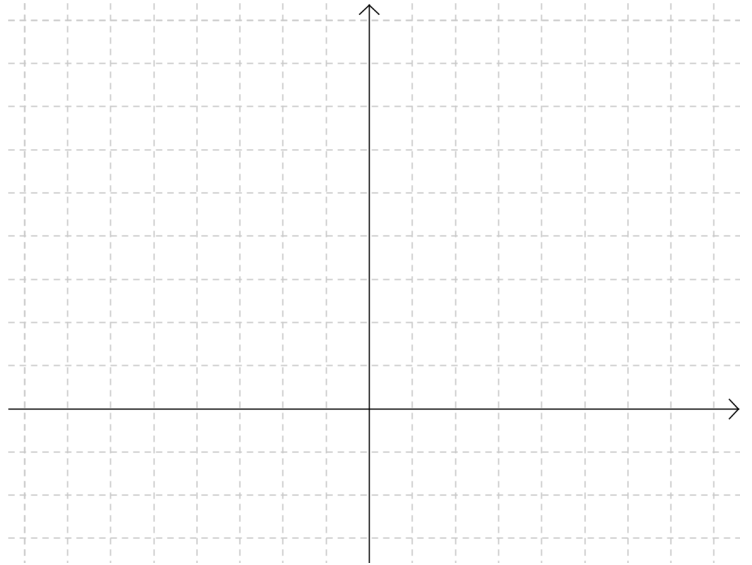
3. Consider the function: $\{(2,5), (1,-3), (-4,9)\}$.
 - a) Give the domain and range of the function.

 - b) Find the inverse function.

 - c) Give the domain and range of the inverse function.

4. Given a function, $f(x)$, with domain $\{x:x \geq -2\}$ and range $\{y:y \leq 5\}$, find the domain and range of the inverse function.

5. Is $f(x) = (x-1)^2 + 3$ one to one?



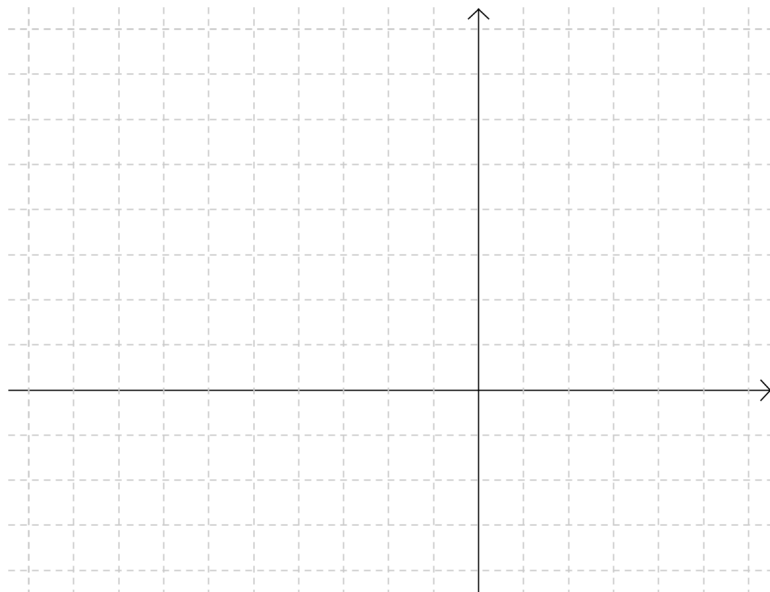
6. How can you limit the domain so that you can find $f^{-1}(x)$?

7. What would $f^{-1}(x)$ be with the restricted domain?

8. Find the inverse of $f(x) = \sqrt{2x-3}$. (Make sure you include domain restrictions if necessary.)

9. Will the inverse of $f(x) = (x+4)^2 + 2$ be a function?

How can you adjust the function so that the inverse is a function too?

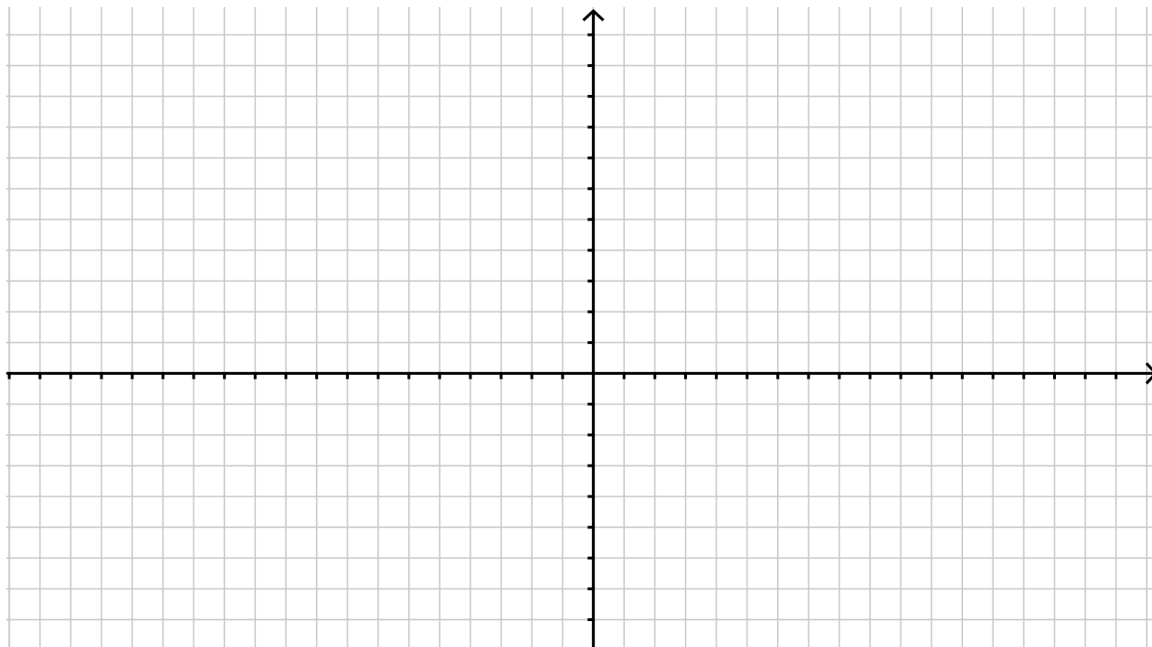


Algebraically:



Graphically:

10. Find the inverse of $f(x) = (x+2)^3 + 1$.



11. True or False: If False, explain how to restrict the questions so that it will be True.

a. If $f(x)$ is an even function $f^{-1}(x)$ exists.

b. If $f(x)$ is an odd function, $f^{-1}(x)$ exists.

c. If $f^{-1}(x)$ exists, the x-intercept of $f(x)$ is the y intercept of $f^{-1}(x)$.

12. Given $f(x) = \frac{1}{2}x + 7$ and $g(x) = 4x^3$

a. Find $(g^{-1}(f^{-1}(-20)))$

b. Find $(f \circ g)^{-1}(61)$