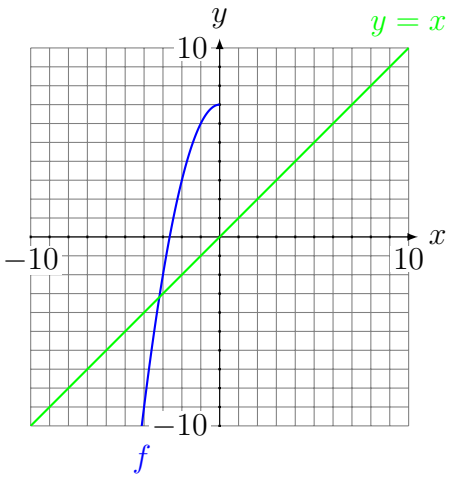
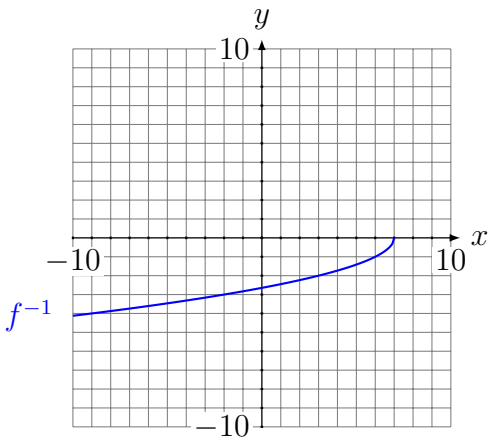
The graph of $f(x) = -x^2 + 7$ is a parabola that opens downward, and is shifted 7 units upward. Because the domain is restricted to $x \leq 0$, we sketch only that part of the parabola that lies to the left of $x = 0$ (see the figure on the left). Note that this piece satisfies the horizontal line test, so f is a one-to-one function and its inverse exists. The inverse is found by reflecting the graph of f across the line $y = x$, which produces the graph shown in the figure on the right.





One might surmise from the figure on the right that the equation of the inverse function is $f^{-1}(x) = -\sqrt{-(x-7)}$, but let's use an algebraic approach to verify the result.