

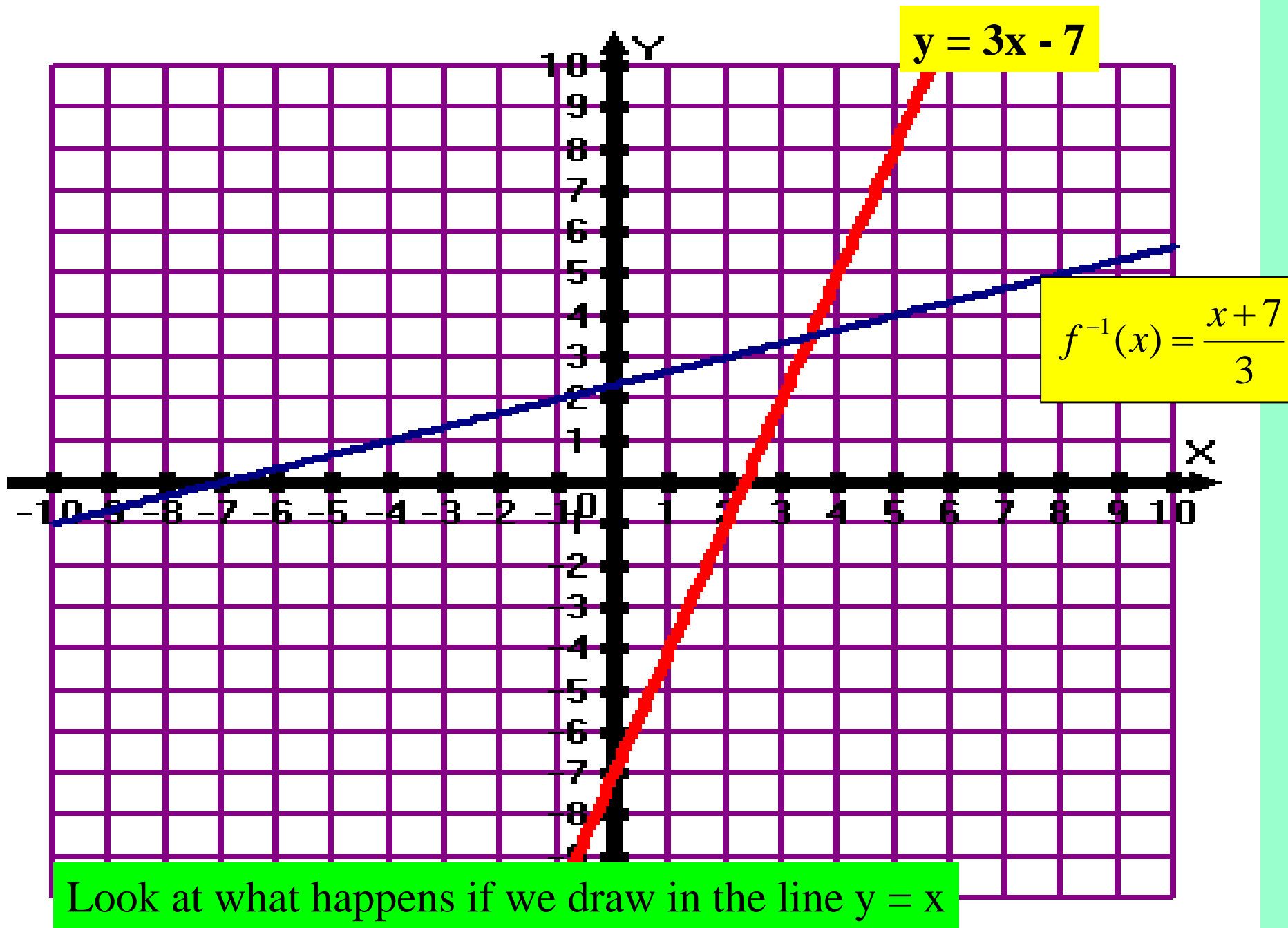
5. Graph of the Inverse Functions

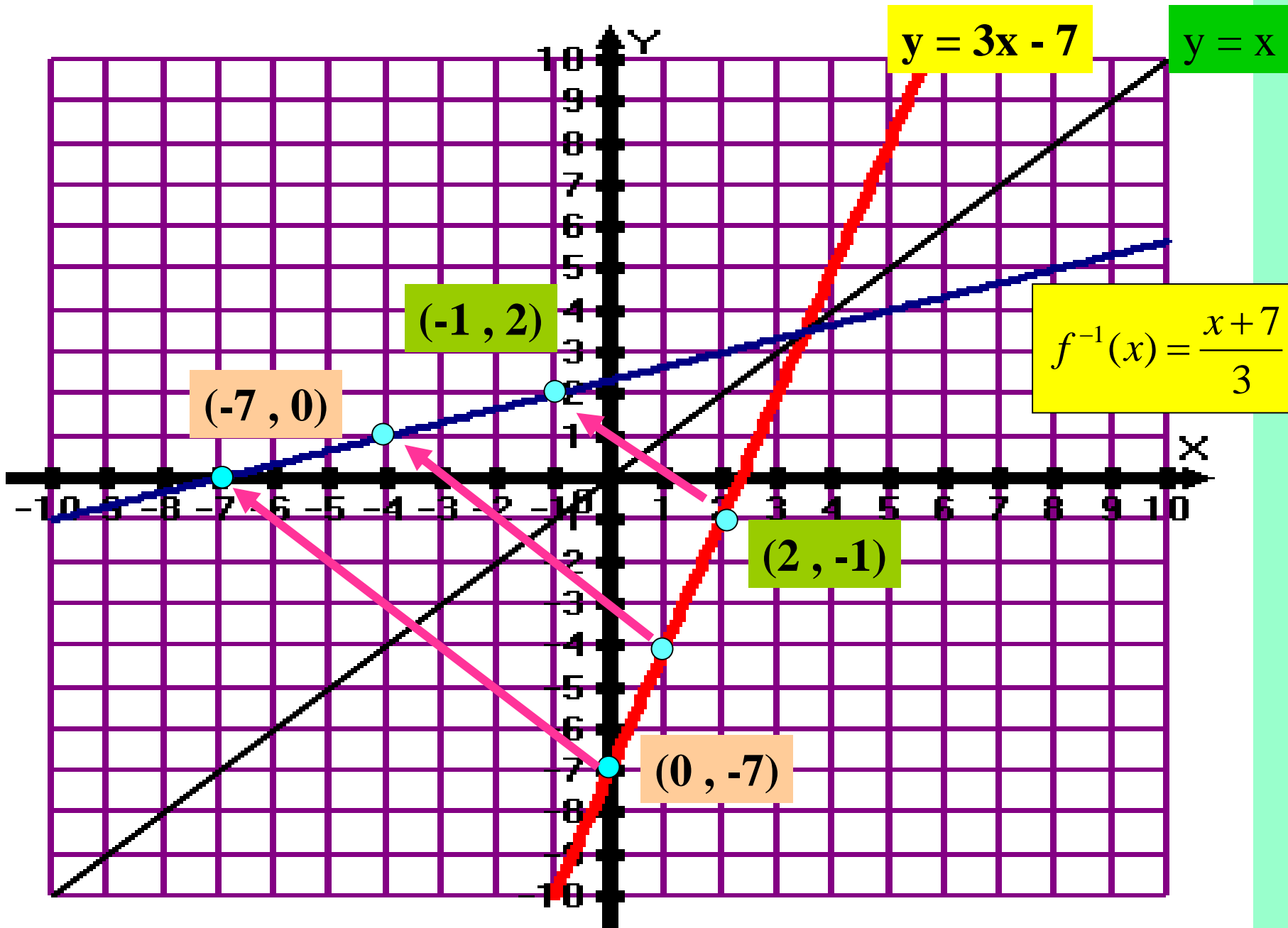


Graph of the inverse

In the last lesson we found that if $f(x) = 3x - 7$ then $f^{-1}(x) = \frac{x+7}{3}$

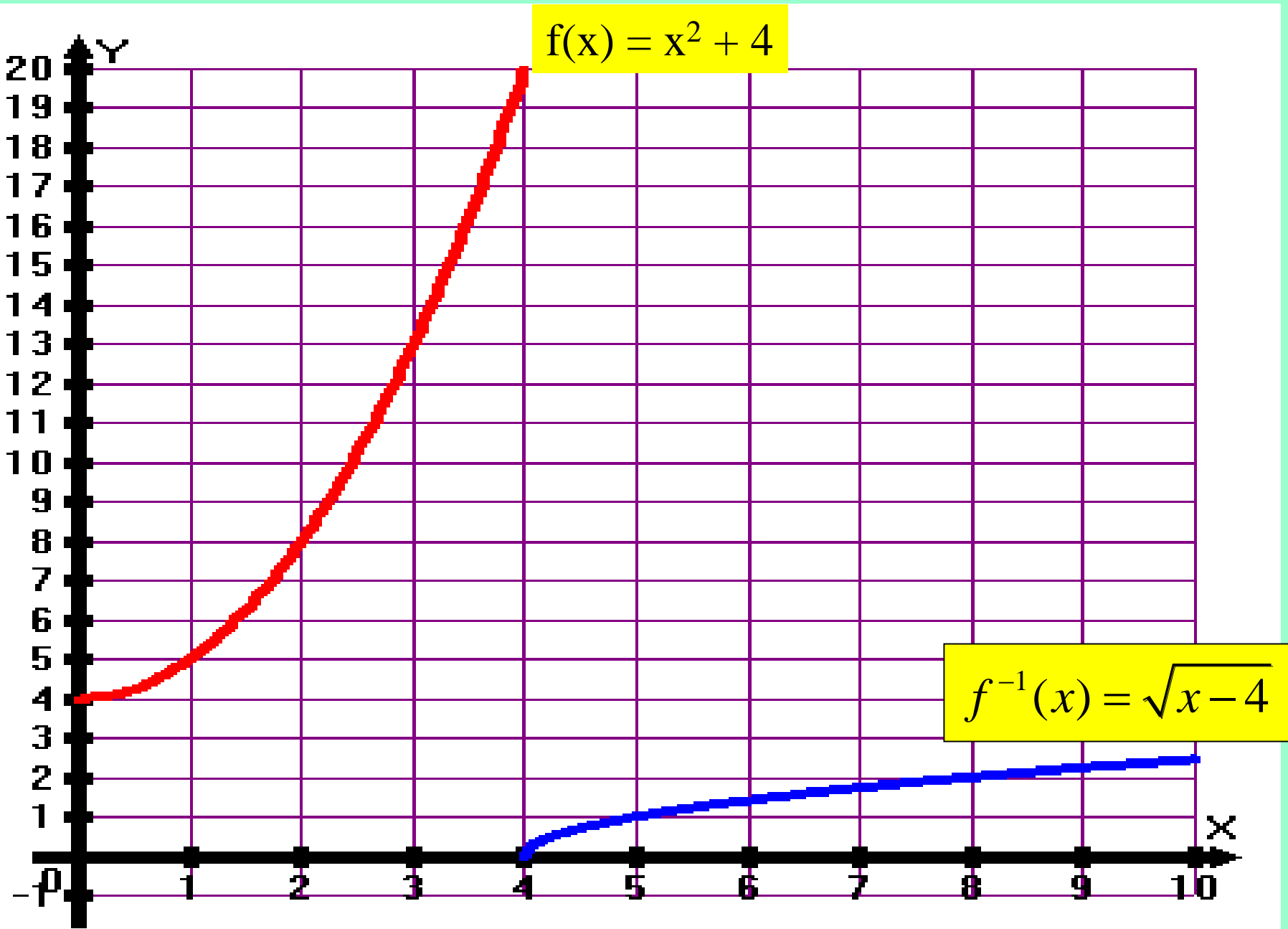
The graphs of these two functions look like this:





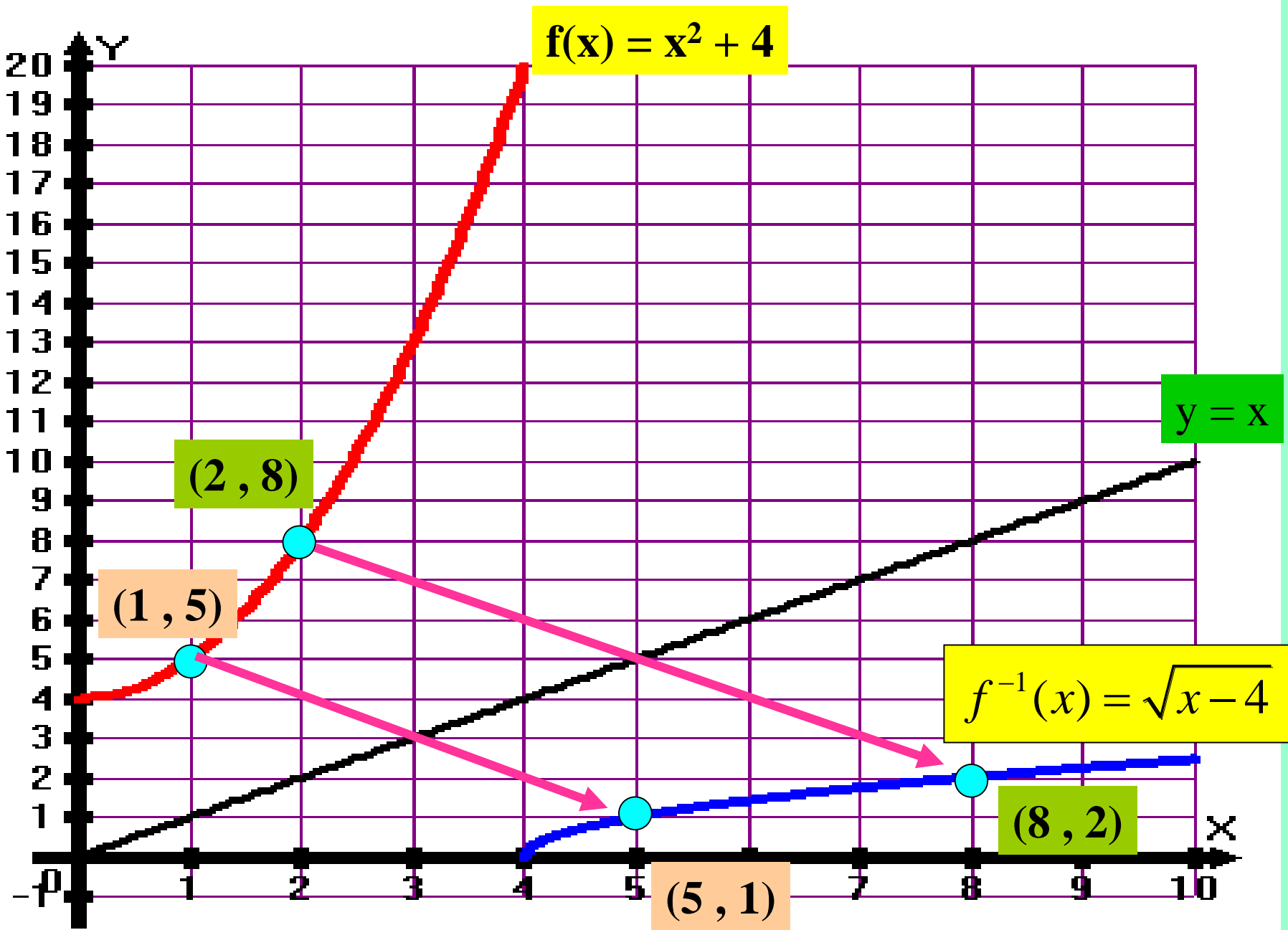
We also found that if $f(x) = x^2 + 4$ then $f^{-1}(x) = \sqrt{x - 4}$

The graphs of these two functions look like this:



$$f(x) = x^2 + 4$$

$$f^{-1}(x) = \sqrt{x - 4}$$



Graph of the inverse

Copy the following:

Summary:

1. The graph of $f^{-1}(x)$ is a reflection of $f(x)$ in the line $y = x$.
2. To plot $f^{-1}(x)$ pick some “special points” on $f(x)$ and reflect them in the line $y = x$.

Remember : Reverse the coordinates so $(a, b) \rightarrow (b, a)$

Heinemann, p.29, EX 2F Q1