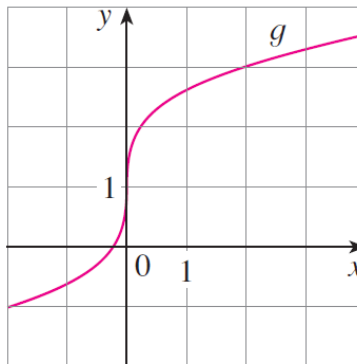


Exercise 2

The graph of g is given.

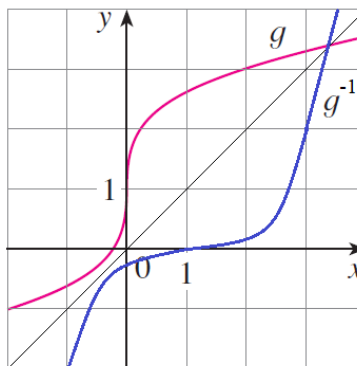


- State the value of $g(2)$.
- Why is g one-to-one?
- Estimate the value of $g^{-1}(2)$.
- Estimate the domain of g^{-1} .
- Sketch the graph of g^{-1} .

Solution

At $x = 2$, the function has a height of 3.

g is one-to-one because every value of y on the curve corresponds with only one value of x ; that is, it passes the horizontal line test. Because it is, the inverse function g^{-1} exists.



At $x = 2$, g^{-1} is roughly 0.2.

The domain of g^{-1} is roughly $\{x \mid -1 \leq x \leq 3.5\}$, which is the range of g .