

Exercise 64

If $f(x) = x + 4$ and $h(x) = 4x - 1$, find a function g such that $g \circ f = h$.

Solution

Notice that multiplying f by 4 gives $4x$. Subtract 17 to get -1 .

$$g \circ f = g(f(x)) = 4(x + 4) - 17 = 4x - 1$$

Therefore,

$$g(x) = 4x - 17.$$