

# Composite function

If we have two functions  $f(x)$  and  $g(x)$ , we can make a new function by applying  $f$  followed by  $g$ , namely  $h(x) = g(f(x))$ . Then  $h$  is called a *composite function*, and we write  $h = g \circ f$  or  $h = gf$ .

To be able to do this, we require that the range of  $f$  is contained within the domain of  $g$ .