

Exercise 66

For the following exercises, use the function values for f and g shown in Table 4 to evaluate the expressions.

x	$f(x)$	$g(x)$
-3	11	-8
-2	9	-3
-1	7	0
0	5	1
1	3	0
2	1	-3
3	-1	-8

Table 4

$$(f \circ g)(1)$$

Solution

Note that

$$(f \circ g)(1) = f(g(1)).$$

Notice from the table that $g(1) = 0$ and $f(0) = 5$, so $f(g(1)) = f(0) = 5$. Therefore,

$$(f \circ g)(1) = 5.$$