

Exercise 31

Tabular representations for the functions f , g , and h are given below. Write $g(x)$ and $h(x)$ as transformations of $f(x)$.

x	-2	-1	0	1	2
$f(x)$	-2	-1	-3	1	2

x	-1	0	1	2	3
$g(x)$	-2	-1	-3	1	2

x	-2	-1	0	1	2
$h(x)$	-1	0	-2	2	3

Solution

$g(x)$ has the same outputs as $f(x)$ but with inputs off by 1.

$$g(x) = f(x - 1)$$

$h(x)$ has the same inputs as $f(x)$ but with outputs off by 1.

$$h(x) = f(x) + 1$$