Exercises - Operations on Functions and Composition of Functions

1

If $f(x) = x^2 - 3x - 1$ and $g(x) = 1 - x$, what is the value of $f \circ g(-2)$?

A) -3

B) -1

C) 1

D) 3

2

If $f = \{(-4,12),\ (-2,4),\ (2,0),\ (3,\frac{3}{2})\}$ and $g = \{(-2,5),\ (0,1),\ (4,-7),\ (5,-9)\}$, what is the value of $g \circ f(2)$?

A) -9

B) -7

C) 1

D) 5

3

A function f satisfies $f(-1) = 8$ and $f(1) = -2$. A function g satisfies $g(2) = 5$ and $g(-1) = 1$. What is the value of $f(g(-1))$?

A) -2

B) 1

C) 5

D) 8

4

If $f(x) = \frac{1-5x}{2}$ and $g(x) = 2 - x$, what is the value of $f(g(3))$?

A) -7

B) -2

C) 2

D) 3

Questions 5 and 6 refer to the following information.

x	$f(x)$	$g(x)$
-2	-5	0
0	6	4
3	0	-5

The table above gives values of f and g at selected values of x.

5

What is the value of $f(g(-2))$?

6

What is the value of $g(f(3))$?