

Evaluate Composite Functions

Perform the indicated operation. Remember that $(f \circ g)(3)$ is the same as $f(g(3))$

1) $h(x) = -3x + 5$
 $g(x) = x + 4$
Find $(h \circ g)(9)$

2) $f(x) = 2x$
 $g(x) = x^2 + 3$
Find $(f \circ g)(-8)$

3) $g(x) = 3x + 1$
 $f(x) = x^3 + 5$
Find $(g \circ f)(1)$

4) $f(n) = -4n$
 $g(n) = 3n$
Find $(f \circ g)(-10)$

5) $g(x) = x^2 + 4$
 $h(x) = x + 4$
Find $(g \circ h)(1)$

6) $g(n) = 2n - 5$
 $h(n) = n^2 - n$
Find $(g \circ h)(5)$

7) $f(n) = 3n - 1$
 $g(n) = 2n + 4$
Find $(f \circ g)(-2)$

8) $g(n) = 4n - 1$
 $h(n) = n^2 - 3n$
Find $(g \circ h)(-3)$

Perform the indicated operation.

9) $g(n) = 2n - 5$
Find $(g \circ g)(n)$

10) $h(n) = -2n - 1$
 $g(n) = 4n + 5$
Find $(h \circ g)(n)$

11) $g(a) = 2a - 5$
 $h(a) = a^3 - 2$
Find $(g \circ h)(a)$

12) $g(n) = -2n + 5$
Find $(g \circ g)(n)$

13) $g(n) = n^2 + 3$
 $f(n) = n + 2$
Find $(g \circ f)(n)$

14) $g(x) = x^2 - 3x$
Find $(g \circ g)(x)$

15) $g(x) = 2x + 4$
 $h(x) = -3x + 4$
Find $(g \circ h)(x)$

16) $f(x) = 2x - 4$
 $g(x) = 4x + 5$
Find $(f \circ g)(x)$

Answers to Evaluate Composite Functions

1) -34

5) 29

9) $4n - 15$

13) $n^2 + 4n + 7$

16) $8x + 6$

2) 134

6) 35

10) $-8n - 11$

14) $x^4 - 6x^3 + 6x^2 + 9x$

3) 19

7) -1

11) $2a^3 - 9$

15) $-6x + 12$

4) 120

8) 71

12) $4n - 5$