Composition of Functions

Perform the indicated operation.

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

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

3) $g(a) = 3a - 4$
Find $(g \circ g)(a)$

4) $h(n) = 2n + 2$
$g(n) = 2n$
Find $(h \circ g)(n)$

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

6) $h(a) = 2a + 3$
$g(a) = a^2 + 2a$
Find $(h \circ g)(1)$

7) $f(t) = 2t + 5$
$g(t) = t^3 - 2t^2$
Find $(f \circ g)(0)$

8) $g(a) = -4a - 3$
$f(a) = a^2 - 5$
Find $(g \circ f)(1)$

9) $g(a) = 4a$
$f(a) = 4a - 4$
Find $(g \circ f)(3)$

10) $g(x) = -3x - 4$
$h(x) = 2x + 1$
Find $(g \circ h)(-5)$

11) $f(a) = 4a - 1$
$g(a) = -3a^2 + 5$
Find $(f \circ g)(4)$

12) $g(n) = 3n^2 + 4n$
$h(n) = 2n - 5$
Find $(g \circ h)(4)$

13) $g(n) = n^2 - 3n$
$h(n) = 4n + 4$
Find $(g \circ h)(0)$

14) $g(n) = 4n$
$h(n) = 4n + 4$
Find $(g \circ h)(-7)$

15) $f(t) = t + 3$
Find $(f \circ f)(5)$

 Name_____

Composition of Functions

Perform the indicated operation.

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

$-4n^2 - 4n - 24$

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

$16n^2 - 40n + 20$

3) $g(a) = 3a - 4$
Find $(g \circ g)(a)$

$9a - 16$

4) $h(n) = 2n + 2$
$g(n) = 2n$
Find $(h \circ g)(n)$

$4n + 2$

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

$8n + 21$

6) $h(a) = 2a + 3$
$g(a) = a^2 + 2a$
Find $(h \circ g)(1)$

9

7) $f(t) = 2t + 5$
$g(t) = t^3 - 2t^2$
Find $(f \circ g)(0)$

5

8) $g(a) = -4a - 3$
$f(a) = a^2 - 5$
Find $(g \circ f)(1)$

13

9) $g(a) = 4a$
$f(a) = 4a - 4$
Find $(g \circ f)(3)$

32

10) $g(x) = -3x - 4$
$h(x) = 2x + 1$
Find $(g \circ h)(-5)$

23

11) $f(a) = 4a - 1$
$g(a) = -3a^2 + 5$
Find $(f \circ g)(4)$

−173

12) $g(n) = 3n^2 + 4n$
$h(n) = 2n - 5$
Find $(g \circ h)(4)$

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13) $g(n) = n^2 - 3n$
$h(n) = 4n + 4$
Find $(g \circ h)(0)$

4

14) $g(n) = 4n$
$h(n) = 4n + 4$
Find $(g \circ h)(-7)$

−96

15) $f(t) = t + 3$
Find $(f \circ f)(5)$

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