

Practice function compositions & evaluate compositions

Perform the indicated operation.

1) $g(t) = 3t - 2$
 $h(t) = 4t + 4$
Find $(g \circ h)(t)$

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

3) $g(x) = x^2 + 4$
 $f(x) = 2x + 2$
Find $g(f(x))$

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

5) $f(x) = 4x + 4$
Find $(f \circ f)(x)$

6) $f(x) = x - 4$
Find $(f \circ f)(x)$

7) $g(x) = 3x + 5$
Find $(g \circ g)(x)$

8) $f(t) = 4t - 4$
Find $(f \circ f)(t)$

9) $f(x) = -x + 5$
 $g(x) = x - 5$
Find $f(x) - 5g(x)$

10) $f(n) = n^2 - 5 + 2n$
 $g(n) = 3n + 1$
Find $2f(n) + 4g(n)$

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

12) $g(t) = 2t - 1$
 $h(t) = t^2 + 5$
Find $g(h(-7))$

13) $f(n) = n^2 + 4$
 $g(n) = n + 5$
Find $4f(-5) + 5g(-5)$

14) $g(n) = 3n - 1$
 $f(n) = 2n + 5$
Find $5g(5) + 3f(5)$