

## 6.6 Function Composition

Date \_\_\_\_\_ Period \_\_\_\_\_

**Perform the indicated operation.**

1)  $f(a) = 4a + 4$   
 $g(a) = 4a + 1$   
Find  $(f \circ g)(a)$

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

3)  $f(a) = a^3 - a$   
Find  $(f \circ f)(a)$

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

5)  $g(a) = a^2 - 5$   
 $h(a) = 2a$   
Find  $(h \circ g)(-7)$

6)  $g(n) = n - 3$   
 $h(n) = 2n + 5$   
Find  $(g \circ h)(-6)$

7)  $h(x) = 4x - 4$   
Find  $(h \circ h)(-1)$

8)  $g(x) = -2x - 5$   
 $h(x) = x^3 + 5$   
Find  $(g \circ h)(0)$