Pre-Calculus

Name_____

COMPOSITION OF FUNCTIONS

Date_____ Period_____

Perform the indicated operation.

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

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

3) $g(x) = 2x + 1$
   Find $(g \circ g)(x)$

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

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

6) $f(t) = t - 3$
   $g(t) = 4t + 3$
   Find $(f \circ g)(t)$

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

8) $g(x) = 3x + 4$
   $h(x) = x^3 + 4x^2$
   Find $(g \cdot h)(1)$

9) $h(n) = 3n - 1$
   $g(n) = n - 2$
   Find $(5h + 5g)(-3)$

10) $g(t) = t^3 - 5t$
    $h(t) = t - 5$
    Find $(g \cdot h)(2)$

Answers to COMPOSITION OF FUNCTIONS (ID: 1)

1) $4x^3 - 10x + 5$ 2) $27x^3 + 81x^2 + 87x + 33$ 3) $4x + 3$

4) $2n^3 - 22n^2 + 80n - 96$ 5) $2n^3 - 4n - 1$ 6) $4t$

7) 10 8) 35 9) -75 10) 6