

Operations of Functions

Date _____ Period _____

Perform the indicated operation.

1) $g(n) = 3n - 4$
 $h(n) = 4n - 5$
 Find $(g + h)(n)$

2) $g(a) = a + 2$
 $f(a) = 4a + 5$
 Find $g(a) - f(a)$

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

4) $g(x) = -2x - 5$
 $f(x) = -x^2 - 2x$
 Find $g(x) \cdot f(x)$

5) $g(n) = n^2 + 5n$
 $f(n) = n + 4$
 Find $\left(\frac{g}{f}\right)(n)$

6) $g(x) = 3x - 5$
 $f(x) = x^2 - 3x$
 Find $(g + f)(5)$

7) $g(x) = x - 1$
 $f(x) = x^3 + 5$
 Find $(g - f)(-4)$

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

9) $g(a) = 2a - 3$
 $f(a) = 4a + 5$
 Find $\left(\frac{g}{f}\right)(-4)$

10) $f(a) = a + 1$
 $g(a) = a^2 - 1 - 2a$
 Find $(f \cdot g)(-2)$

11) $g(x) = x^2 - 2$
 $f(x) = x - 4$
Find $(g \circ f)(x)$

12) $g(n) = n + 1$
 $h(n) = n^3 + 3n^2$
Find $(g \circ h)(n)$

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

14) $g(t) = t^2 + 1$
 $h(t) = 3t$
Find $(g \circ h)(t)$

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

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

17) $h(n) = 4n + 5$
 $g(n) = 3n^2 + 1$
Find $(h \circ g)(n)$

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

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

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