Math 2   Name_____

Unit 6.7 Functions Operations   Period____

Perform the indicated operation.

1) $g(n) = 4n - 3$
    $h(n) = 4n + 3$
    Find $(g - h)(8)$

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

3) $h(x) = -3x + 3$
    $g(x) = -x - 5$
    Find $h(-9) - g(-9)$

4) $g(x) = 3x - 1$
    $h(x) = 3x - 3$
    Find $g(-6) + h(-6)$

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

6) $g(a) = 3a - 3$
    $h(a) = 2a + 5$
    Find $\left(\dfrac{g}{h}\right)(5)$

7) $g(t) = 2t - 3$
    $f(t) = -2t^2 - 4t$
    Find $g(-4) \cdot f(-4)$

8) $g(n) = n + 1$
    $f(n) = -n + 2$
    Find $g(0) \div f(0)$

9) $h(n) = n^3 + n$
    $g(n) = -4n - 3$
    Find $h(n) + g(n)$

10) $f(t) = -2t^2 + 5$
    $g(t) = 3t - 4$
    Find $(f \cdot g)(t)$

11) $h(x) = x + 3$
    $g(x) = 3x - 3$
    Find $\left(\dfrac{h}{g}\right)(x)$

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

13) $h(x) = 2x - 3$
    $g(x) = x - 2$
    Find $(h - g)(x)$

14) $f(x) = 2x - 2$
    $g(x) = 4x - 3$
    Find $f(x) \div g(x)$

15) $f(a) = -3a - 5$
$g(a) = a^2 - 4a$
Find $\left(\dfrac{f}{g}\right)(a)$

16) $f(x) = x^2 + 4$
$g(x) = 4x + 4$
Find $f(x) \div g(x)$

17) $f(x) = 4x - 4$
$g(x) = x^2 - 5x$
Find $(f + g)(x)$

18) $g(n) = n^3 - 1$
$f(n) = 3n - 3$
Find $g(n) - f(n)$

19) $f(n) = 4n + 4$
$g(n) = 4n - 1$
Find $\left(\dfrac{f}{g}\right)(n - 3)$

20) $g(a) = -3a + 4$
$h(a) = 4a - 1$
Find $g(a^2) \div h(a^2)$

21) $h(x) = x - 5$
$g(x) = x^3 + 4x$
Find $(h + g)\left(\dfrac{x}{3}\right)$

22) $h(x) = x - 2$
$g(x) = 2x - 1$
Find $h(x^2) \cdot g(x^2)$

23) $g(a) = -2a - 2$
$h(a) = 2a + 1$
Find $(g \cdot h)(3a)$

24) $g(t) = -2t^2 + 4t$
$h(t) = -2t$
Find $g(2n) + h(2n)$

25) $f(n) = n - 3$
$g(n) = 3n + 5$
Find $f(n^2) - g(n^2)$

26) $f(n) = 4n + 5$
$g(n) = 4n + 4$
Find $f(4n) \div g(4n)$

27) $h(x) = 2x^2 + 4x$
$g(x) = 3x + 4$
Find $h\left(\dfrac{x}{3}\right) + g\left(\dfrac{x}{3}\right)$

28) $g(n) = -n^3 + 5$
$h(n) = 2n - 1$
Find $(g - h)(4n)$