Math 2 Name_____

Unit 9.4 Add and Subtract Operations with Functions PRACTICE

Period____

Perform the indicated operation.

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

$x^3 - 2x - 9$

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

$x^2 + x + 1$

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

$n^2 - 2n$

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

$7x - 8$

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

$-a^2 + 4a + 4$

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

$x^3 + 5x^2 + 3x - 2$

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

$3x^2 + 2x + 6$

8) $g(a) = -a + 1$
$h(a) = 2a - 2$
Find $g(a) - h(a)$

$-3a + 3$

9) $f(t) = 2t + 4$
$g(t) = 3t - 1$
Find $f(-5) + g(-5)$

-22

10) $h(t) = t^2 - 5t$
$g(t) = 2t - 4$
Find $(h + g)(2)$

-6

11) $h(n) = 3n + 2$
$g(n) = n - 4$
Find $(h - g)(0)$

6

12) $h(a) = a + 2$
$g(a) = -a + 1$
Find $h(-4) + g(-4)$

3

13) $f(n) = 3n + 4$
$g(n) = -n^2 + 2$
Find $f(8) - g(8)$

90

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

-15

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

26

16) $h(x) = -2x^2 + 4$
$g(x) = 4x - 2$
Find $h(7) - g(7)$

-120

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

$x^4 + 4x^2 - 5$

18) $g(t) = t - 4$
$h(t) = -2t - 5$
Find $g(-3t) - h(-3t)$

$-9t + 1$

19) $h(x) = 3x + 2$
$g(x) = x^2 - x$
Find $h(-x) - g(-x)$

$-x^2 - 4x + 2$

20) $h(x) = 2x + 2$
$g(x) = x^2 + 5$
Find $(h + g)(b^2)$

$b^4 + 2b^2 + 7$

21) $g(x) = 4x - 2$
$h(x) = x^2 + 3$
Find $g(2x) - h(2x)$

$-4x^2 + 8x - 5$

22) $h(n) = 3n - 5$
$g(n) = 2n^2 - n$
Find $h\left(\frac{n}{4}\right) + g\left(\frac{n}{4}\right)$

$\frac{1}{8}n^2 + \frac{1}{2}n - 5$

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

$n^2 + 2n$

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

$4n + 13$