Algebra 2 Name_____

Combining Functions Homework

Date_____ Period____

Perform the indicated operation.

1) $h(x) = x - 4$
$g(x) = x^2 - 6x$
Find $(h + g)(x)$

2) $g(a) = 2a$
$h(a) = a + 4$
Find $(g + h)(a)$

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

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

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

6) $f(t) = t - 4$
$g(t) = t^2 + 3t$
Find $(f - g)(t)$

7) $g(a) = a + 1$
$f(a) = a^3 + 3a$
Find $(g - f)(a)$

8) $g(x) = 4x - 4$
$f(x) = x^2 - 2x$
Find $(g - f)(x)$

9) $f(x) = x^3 + 2$
$g(x) = 2x - 2$
Find $(f \cdot g)(x)$

10) $g(n) = 3n - 3$
$f(n) = n^2 + 2n$
Find $(g \cdot f)(n)$

11) $g(n) = n + 5$
$f(n) = -n^2 - 4n$
Find $(g \cdot f)(n)$

12) $g(x) = x + 4$
$h(x) = x^3 + 3$
Find $(g \cdot h)(x)$

13) $g(x) = 3x - 5$
$h(x) = x^2 - 2$
Find $\left(\frac{g}{h}\right)(x)$

14) $h(x) = 2x^2 - 1$
$g(x) = 3x - 3$
Find $\left(\frac{h}{g}\right)(x)$

15) $g(n) = 4n + 4$
$h(n) = 2n + 3$
Find $\left(\frac{g}{h}\right)(n)$

16) $g(x) = x^2 - 3$
$f(x) = 2x - 4$
Find $\left(\frac{g}{f}\right)(x)$

17) $h(n) = 4n - 2$
$g(n) = -2n + 1$
Find $(h \circ g)(n)$

18) $g(a) = -4a - 1$
$h(a) = 3a$
Find $(g \circ h)(a)$

19) $g(x) = 3x^2 - 2x$
$h(x) = 3x - 1$
Find $(g \circ h)(x)$

20) $h(t) = t^2 - 5$
$g(t) = -4t - 4$
Find $(h \circ g)(t)$

Answers to Combining Functions Homework (ID: 1)

1) $x^2 - 5x - 4$

3) $7n - 5$

5) $-x + 4$

7) $-a^3 - 2a + 1$

9) $2x^4 - 2x^3 + 4x - 4$

11) $-n^3 - 9n^2 - 20n$

13) $\dfrac{3x - 5}{x^2 - 2}$

15) $\dfrac{4n + 4}{2n + 3}$

17) $-8n + 2$

19) $27x^2 - 24x + 5$