Algebra 2

Name_____

HW #13

Date_____

Perform the indicated operation.

1) $g(t) = 3t - 2$
$h(t) = t^2 + 2t$
Find $(g + h)(t)$

2) $g(x) = x + 5$
$f(x) = x - \sqrt{2}$
Find $\left(\dfrac{f}{g}\right)(x)$

3) $g(x) = 2x - 2$
$f(x) = x + 1$
Find $(g \cdot f)(x)$

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

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

6) $g(x) = x^2 + 5x - 24$
$f(x) = x - 3$
Find $\left(\dfrac{g}{f}\right)(x)$

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

8) $g(x) = -2x + 2$
$f(x) = 2x + 4$
Find $(g \circ f)(x)$

9) $g(x) = x^2 + 5$
$h(x) = 2x - 5$
Find $(g - h)(9)$

10) $f(x) = x - 2$
$g(x) = 3x + 5$
Find $(f \cdot g)(5)$

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

12) $g(x) = x - 5$
Find $(g \circ g)(-2)$

Answers to HW #13

1) $t^2 + 5t - 2$

2) $\dfrac{x^2 + 5x + x\sqrt{2} + 5\sqrt{2}}{x^2 - 2}$

3) $2x^2 - 2$

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

5) $2x^3 - 7x^2 - 15x$

6) $x + 8$

7) $2x^3 - 5x^2 + 3x$

8) $-4x - 6$

9) 73

10) 60

11) $-\dfrac{12}{25}$

12) -12