

**P2-2: Operations on Polynomial Functions**

Honors Advanced Algebra

Name: Key  
Period: \_\_\_\_\_ Date: \_\_\_\_\_

Use the given functions to perform the indicated operations.

$f(x) = 2x^2$

$g(x) = 4x - 2$

$h(x) = x^2 + 5x - 1$

$n(x) = 3x + 6$

1. $(f + g)(x)$ $2x^2 + 4x - 2$	2. $(h + f)(x)$ $3x^2 + 5x - 1$	3. $(g + n)(x)$ $7x + 4$
4. $(f - h)(x)$ $x^2 - 5x + 1$	5. $(n - g)(x)$ $-x + 8$	6. $(h - f)(x)$ $-x^2 + 5x - 1$
7. $(f \cdot g)(x)$ $8x^3 - 4x^2$	8. $(g \cdot n)(x)$ $12x^2 + 18x - 12$	9. $(n \cdot h)(x)$ $3x^3 + 21x^2 + 27x - 6$
10. $f(-2)$ $8$	11. $g(3a)$ $12a - 2$	12. $h(2c^2)$ $4c^4 + 10c^2 - 1$