

**Directions:** Complete the chart below using the process of evaluation or operations with functions. Must show work on a separate sheet of paper! Place your answers in the boxes provided.

Given Functions	a.) $2f(3) - 4g(-2)$	b.) $f(2x-6)$	c.) $(f+g)(x)$	d.) $(f \cdot g)(x)$	e.) $(f/g)(x)$	f.) $(f \circ g)(x)$
1.) $f(x) = 4x + 3$ $g(x) = x - 2$	46	$8x - 21$	$5x + 1$	$4x^2 - 5x - 6$	$\frac{4x+3}{x-2}; x \neq 2$	
2.) $f(x) = x - 3$ $g(x) = x^2 - 9$	20	$2x - 9$	$x^2 + x - 12$	$x^2 - 3x^2 - 9x + 27$	$\frac{1}{x+3}; x \neq -3$	
3.) $f(x) = x^2 + 2x$ $g(x) = -2x$	14	$4x^2 - 20x + 24$	$x^2$	$-2x^3 - 4x^2$	$\frac{x+2}{-2}$	
4.) $f(x) = x^2 + 5x + 4$ $g(x) = x + 1$	60	$4x^2 - 14x + 10$	$x^2 + 6x + 5$	$x^3 + 6x^2 + 4x + 4$	$x + 4$	
5.) $f(x) = x^2 - x - 6$ $g(x) = x^2 - 4x + 3$	-60	$4x^2 - 26x + 36$	$2x^2 - 5x - 3$	$x^4 - 5x^3 + x^2 + 21x - 18$	$\frac{x+2}{x-1}; x \neq 1$	