

Name \_\_\_\_\_

Period \_\_\_\_\_

**Sec1****HW 4-4**  
**Function Operations**

Let  $f(x) = 2x + 5$  and  $g(x) = x - 3$  and  $k(x) = 4x + 2$ . Perform the indicated operation.

1.  $(f + g)(x)$

2.  $(f + k)(x)$

3.  $(g + k)(x)$

4.  $(f - g)(x)$

5.  $(g - f)(x)$

6.  $(k - g)(x)$

7.  $(k - f)(x)$

8.  $(f - f)(x)$

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Let  $f(x) = 2x$  and  $g(x) = x - 3$  Perform the indicated operation.

9. $4[f(x)]$	10. $g(x) + 4$
11. $5[f + g](x)$	12. $(f - g)(x) + 10$
13. $-2[(f \cdot g)(x)]$	14. $3[(g - f)(x)] + 7$

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12.  $(f - g)(x) + 10$

13.  $-2[(f \cdot g)(x)]$

14.  $3[(g - f)(x)] + 7$

Answers:

$5x - 1$	$3x + 2$	0	$8x + 4$	$x + 8$	$x + 1$	$-3x - 2$
$3x + 5$	$8x$	$x + 13$	$6x + 7$	$-4x^2 + 12x$	$151x - 15$	$-x - 8$

Answers:

$5x - 1$	$3x + 2$	0	$8x + 4$	$x + 8$	$x + 1$	$-3x - 2$
$3x + 5$	$8x$	$x + 13$	$6x + 7$	$-4x^2 + 12x$	$151x - 15$	$-x - 8$