Name:
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HOMEWORK 6.4

Secondary Math II

Turned in On Time (4 pts.) ☐

0A. (2 pt.) For the function $f(x) = -2x^2 + x - 7$, find 6f(x).

0B. (2 pt.) For the function $g(x) = -21x + 4$, find g(-3).

Review

1. (1 pt.) Simplify.
$3x^2 + 4x - 11 + 5 - 3x^2 - 7x$

2. (1 pt.) Solve. $(x-4)(3x+7) = 0$

3. (1 pt.) Factor completely.
$2x^2 + 7x - 15$

Fill in the tables below.

Classroom Exercise #4

(3 pts.) ☐

X	f(x)	g(x)	(fg)(x)

4A. (1 pt.)

X	f(x)	g(x)	(fg)(x)
-2	2	3	
-1	1	2	
0	0	1	
1	-1	1	

4B. (1 pt.)

X	f(x)	g(x)	(fg)(x)
-1	5	3	
0	4	-2	
1	2	-1	
2	-3	0	

4C. (1 pt.)

X	f(x)	g(x)	(fg)(x)
-2	3	3	
-1	2	4	
0	-1	5	
1	-2	6	

Classroom Exercise #5 (3 pts.) ☐

Use the following functions for the problems below.

$f(x) = -x^2 + 5 \qquad g(x) = x - 3 \qquad k(x) = 2x^2 + x + 6 \qquad h(x) = -4x$

5A. (1pt.) $(fg)(x)$

5B. (1pt.) $(kh)(x)$

5C. (1pt.) $(gk)(x)$

Use the following functions for the problems below.

$f(x) = 2x^2 + 1 \qquad g(x) = 3 \qquad h(x) = x^2 - 3x + 4 \qquad k(x) = -x + 5$

6. (1 pt.) $f(3) \cdot g(3)$

7. (1 pt.) $2(fk)(x)$

8. (1 pt.) $(h \cdot k)(-2)$

9. (1 pt.) $(4gh)(1)$

10. (1 pt.) $(fh)(x)$

11. (1 pt.) $(g \cdot k)(3t)$

12. (1 pt.) A side of a cube is given by x+4. Write the volume of the cube as a function of x.

13. (2 pts.) A garage door has a width that is five feet longer than the height of the door.

A) Write a function that gives the area of the door in terms of the height, h.

B) Write a function that gives the area of the door in terms of the width, w.