

Name:

#:

123

HOMEWORK 6.5

Secondary Math II

Turned in
On Time
(4 pts.)

0A. (2 pt.) For the function $f(x) = -2x^2 + x - 7$ and $g(x) = -21x + 4$, find $(f + g)(x)$

0B. (2 pt.) For the function $f(x) = -2x^2 + x - 7$ and $g(x) = -21x + 4$, find $(f - g)(x)$.

Review

1. (1 pt.) Simplify the radical.
 $\sqrt[3]{56}$

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

3. (1 pt.) Find the area of a circle with a radius of 5 in.

Use the functions $f(x) = 2x - 3$ and $g(x) = -x + 5$ and the table below to answer the following questions.

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

Classroom Exercise #4
(3 pts.)

4A. (1 pt.) Find $(f \circ g)(3)$.

4B. (1 pt.) Find $(f \circ g)(2)$

4C. (1 pt.) Find $(f \circ g)(1)$

5. (1 pt.) Use the functions $f(x) = x - 2$ and $g(x) = -x + 1$ to fill out the table below.

X	-2	-1	0	1	2
g(x)					
$(f \circ g)(x)$					

Use the following functions for the problems below.

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

Classroom Exercise

#6

(3 pts.)

6A. (1 pt.) $(f \circ h)(x)$

6B. (1 pt.) $(k \circ h)(x)$

6C. (1 pt.) $(g \circ k)(x)$

Use the following functions for the problems below.

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

7. (1 pt.) $(f \circ g)(x)$

8. (1 pt.) $(g \circ h)(4)$

9. (1 pt.) $k(g(m))$

10. (1 pt.) $(k \circ f)(-3)$

11. (1 pt.) $(k \circ g)(x)$

12. (1 pt.) $(f \circ f)(2t)$

Your wireless internet company agrees to take \$15 off your next monthly bill if you refer a friend to use their services, which can be represented by the function $f(x) = x - 15$. You also receive a 20% monthly discount through your employer, which can be represented by the function $g(x) = .8x$.

13. (1 pt.) Write a function that would model the price of the service if you used the monthly discount first and then the \$15 off.

14. (1 pt.) Write a function that models the price of the service if you used the \$15 off first and then the monthly discount.

15. (1 pt.) Determine which function would save you more money.

