

2.7A Composition of Functions (Part 1)

AP Precalculus

Name: _____

CA #2

Let $f(x) = 2^x$ and $g(x) = x^3 - 4x$.

1. Find $f(g(2))$.

2. Find $(g \circ f)(-1)$.

3. Find $g(f(1))$.

Let $f(x) = x^2 - 6$ and $g(x) = 1 - x$.

4. Find $f(g(-3))$.

5. Find $f(g(2))$.

6. Find $(g \circ f)(3)$.

7. Let $f(x) = 4^x$ and $h(x) = f(g(x))$. Fill in the table.

x	$g(x)$	$h(x)$
1	-1	
2	0	
3	2	

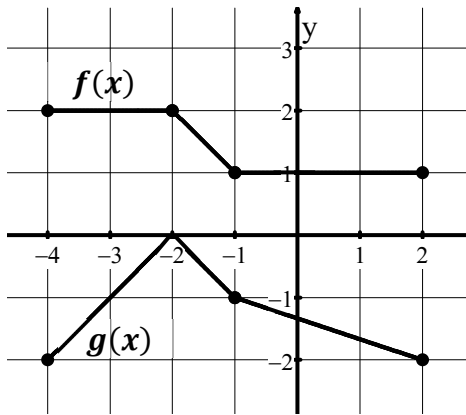
8. Let $g(x) = \sqrt{2x - 1}$ and $h(x) = g(f(x))$. Fill in the table.

x	$f(x)$	$h(x)$
3	13	
4	1	
5	6	

9. Fill in the following table, given that $h(x) = f(g(x))$.

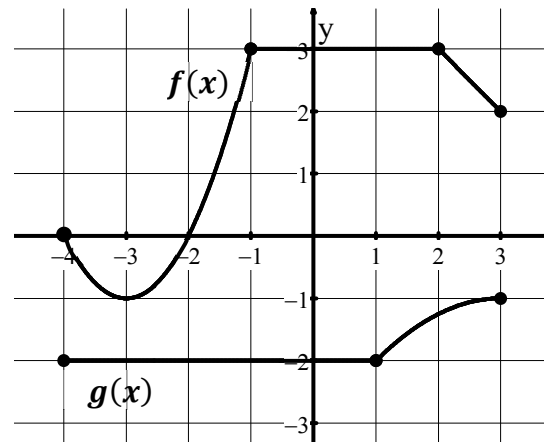
x	$f(x)$	$g(x)$	$h(x)$
-10	7	4	
-6	2	-10	
-1	-6	2	
2	11	7	
4	-1	-6	
7	4	11	
11	-10	-1	

10. Use the graph to find each value.



- Find $f(g(2))$.
- Find $g \circ f(-2)$.
- Find $g(f(-4))$.

11. Use the graph to find each value.



- Find $f(g(1))$.
- Find $f \circ g(3)$.
- Find $g(f(2))$.

Answers to 2.7A CA #2

1. 1	2. $-\frac{15}{8}$	3. 0	4. 10	5. -5	6. -2
7a. $\frac{1}{4}$	8a. 5	9. -1, 7, 11, 4, 2, -10, -6	10a. 2	11a. 0	
7b. 1	8b. 1		10b. -2	11b. 3	
7c. 16	8c. $\sqrt{11}$		10c. -2	11c. -1	