2.7B Composition of Functions (Part 2)

AP Precalculus Name: _____ **CA #2**

Let $f(x) = \sqrt{3x + 6}$ and $g(x) = x^2 - 1$.

1. Find $f \circ g$

2. State the domain of $f \circ g$

3. Find $g \circ f$

4. State the domain of $g \circ f$

Let $f(x) = \sqrt{6 - x}$ and $g(x) = x + 4$.

5. Find $f \circ g$

6. State the domain of $f \circ g$

7. Find $g \circ f$

8. State the domain of $g \circ f$

Express h as a composition of two simpler functions f and g where $h(x) = f(g(x))$.

9. $h(x) = \frac{1}{x+6}$

$f(x) =$

$g(x) =$

10. $h(x) = e^{2-5x}$

$f(x) =$

$g(x) =$

Answers to 2.7B CA #2

1. $\sqrt{3x^2+3}$	2. All real numbers	3. $3x+5$	4. $[-2,\infty)$	5. $\sqrt{2-x}$
6. $(-\infty,2]$	7. $\sqrt{6-x}+4$	8. $(-\infty,6]$	9. $f(x)=\frac{1}{x}$ $g(x)=x+6$	10. $f(x)=e^x$ $g(x)=2-5x$