

Homework #34

1. Complete the following table

x	-2	-1	0	1	2	3
$f(x)$	2	3	-2	3	2	1
$g(x)$	3	-2	0	-1	3	0
$f \circ g(x)$						
$g \circ f(x)$						

In problems 2-5, let $f(x) = x^2 - 4$ and $g(x) = x - 2$

2. Determine $g \circ f(5)$
3. Determine $g \circ f(2)$
4. Write a formula for $g \circ f(x)$
5. Write a formula for $f \circ g(x)$

In problems 6-9, let $f(x) = \frac{x+2}{x}$, and $g(x) = 5^x$ and $h(x) = |x|$

6. Determine $g \circ f(1)$
7. Determine $g \circ h(-2)$
8. Write a formula for $h \circ g(x)$
9. Write a formula for $f \circ h(x)$

10. Find two functions $f(x)$ and $g(x)$ so that $f \circ g(x) = \sqrt{x+3}$