

Name: _____ Per: _____ Date: _____

Using the following functions, compute the following compositions.

$f(x) = 4x - 2$

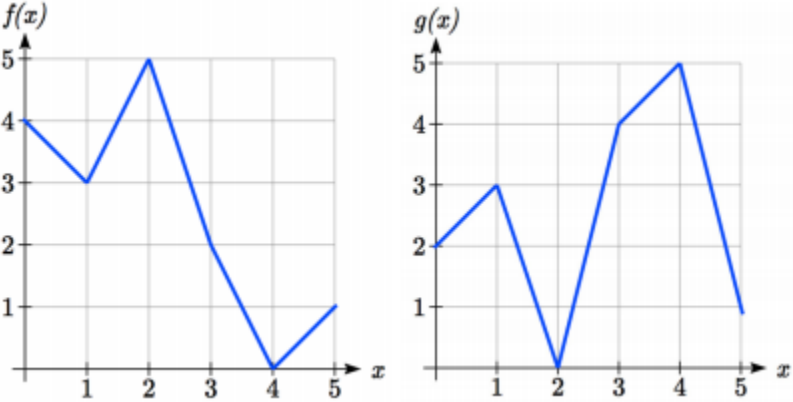
$g(x) = x^2 - x$

$h(x) = x - 2$

$g[h(3)]$	$g[g(-1)]$
$g[h(f(-3))]$	
$g[h(x)]$	$f[g(x)]$

Use the table or graph to evaluate each expression

<table><tr><th>x</th><th>$f(x)$</th><th>$g(x)$</th></tr><tr><td>0</td><td>7</td><td>9</td></tr><tr><td>1</td><td>6</td><td>5</td></tr><tr><td>2</td><td>5</td><td>6</td></tr><tr><td>3</td><td>8</td><td>2</td></tr><tr><td>4</td><td>4</td><td>1</td></tr><tr><td>5</td><td>0</td><td>8</td></tr><tr><td>6</td><td>2</td><td>7</td></tr><tr><td>7</td><td>1</td><td>3</td></tr><tr><td>8</td><td>9</td><td>4</td></tr><tr><td>9</td><td>3</td><td>0</td></tr></table>	x	$f(x)$	$g(x)$	0	7	9	1	6	5	2	5	6	3	8	2	4	4	1	5	0	8	6	2	7	7	1	3	8	9	4	9	3	0	$f(g(8))=$
x	$f(x)$	$g(x)$																																
0	7	9																																
1	6	5																																
2	5	6																																
3	8	2																																
4	4	1																																
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	$f(g(3))=$
	$f(g(1))=$
	$g(f(1))=$
	$g(f(0))=$

Find the domain of each function

$f(x) = \frac{5}{x + 5}$	$(x) = \frac{\sqrt{x + 4}}{20}$
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Find the domain of each function

$f(x) = \frac{x + 3}{5x + 8}$	$f(x) = 4x + 10$
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Given: $f(x) = \frac{1}{x+3}$ and $g(x) = \frac{1}{x-7}$ Find $f(g(x))$ and then determine the domain
