

Number:
Title:

Textbook Section:

1. Let $f(x) = \frac{1}{2}x + 3$ and $g(x) = x^2 - 1$. Find the following.

a) $(f \circ g)(-2)$

b) $(g \circ f)(-2)$

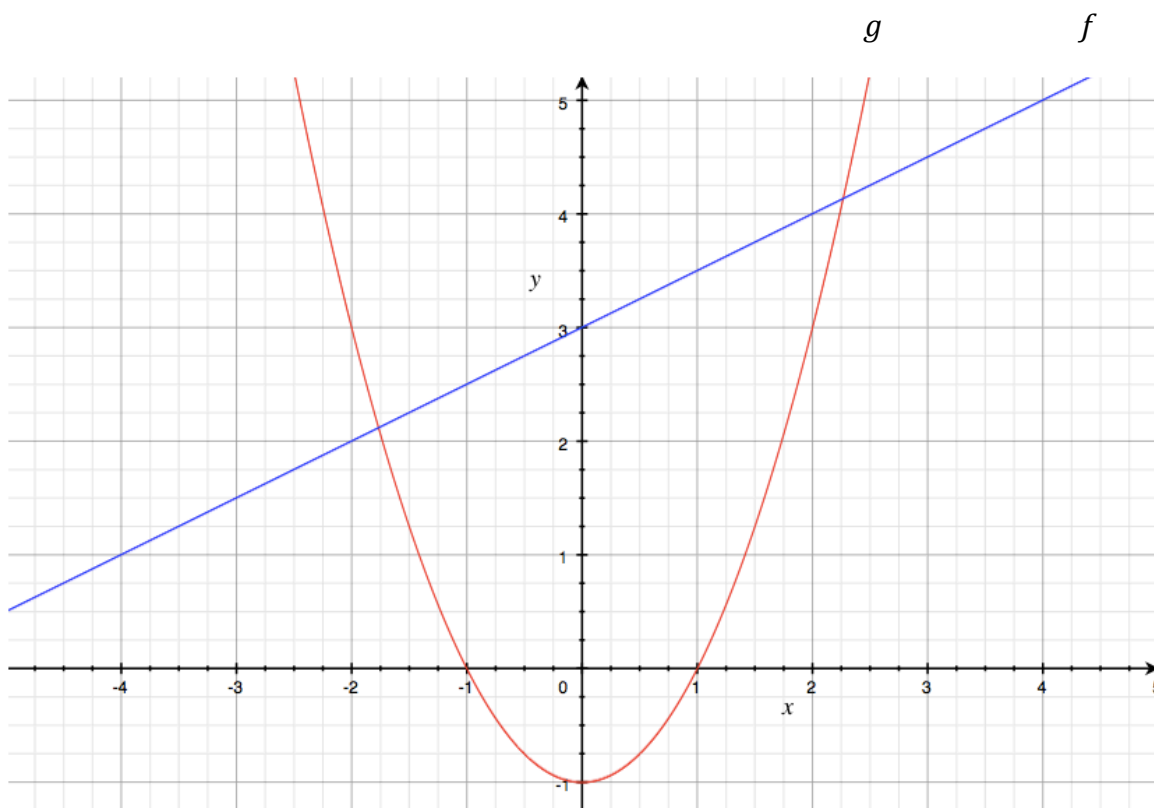
c) $(f \circ f)(1)$

d) $(g \circ g)(3)$

2. Use the graphs of f and g to find the following.

a) $(f \circ g)(-2)$

b) $(g \circ f)(-2)$



For each of the following functions, find $f \circ g$, $g \circ f$ and their domains.

3. $f(x) = \frac{1}{x+1}$, $g(x) = 3x + 6$

4. $f(x) = \sqrt{x-3}$, $g(x) = x^2$

5. $f(x) = \frac{3}{x}$, $g(x) = \frac{x}{x+2}$

6. Express F as $F = f \circ g$.
 $F(x) = \sqrt{2x+1}$

7. Let $f(x) = \sqrt{x}$, $g(x) = 3x+1$ and $h(x) = x^2$. Find $f \circ g \circ h$.