

MAC1105 College Algebra  
3.5 Practice Problems

1. Find the following if if  $f(x)=\sqrt{x}$  and  $g(x)=2x^2-1$ .

a.  $(f+g)(1)$       b.  $(f-g)(4)$

c.  $(fg)(9)$       d.  $\left(\frac{f}{g}\right)(16)$

2. Find  $f+g$ ,  $f-g$ ,  $fg$ , and  $\frac{f}{g}$  if  $f(x)=x^2-25$  and  $g(x)=x^2+2x-15$ .

Determine the domain for each function.

3.  $f(x) = 2x^2 - 3x + 1$  and  $g(x) = x + 1$

a.  $(f \circ g)(x)$

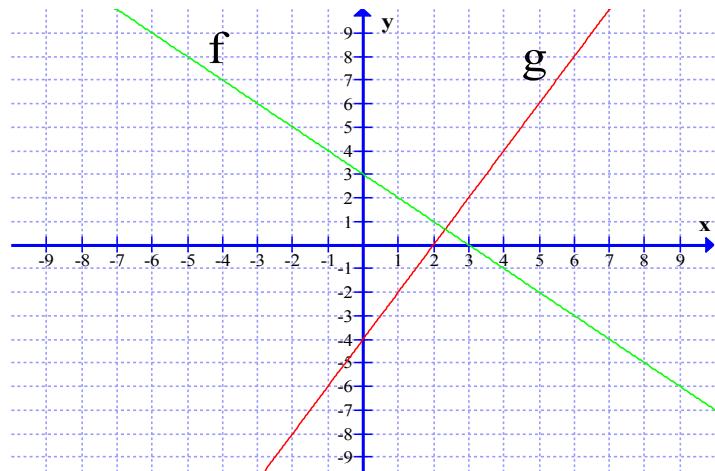
b.  $(g \circ f)(x)$

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

d.  $(g \circ f)(2)$

4. Find the following.

a.  $(f+g)(2)$



b.  $(f-g)(1)$

c.  $(fg)(0)$

d.  $\left(\frac{f}{g}\right)(1)$