

Name:

MATH 1513 – College Algebra  
Quiz 4 – Ch 2.2 & Ch 2.3

Instructions: Print out this page and turn it in at the beginning of class on Thursday. Show all work. Answers with no work shown will receive no credit.

For this quiz, let

$$f(x) = x^2 - 1$$
$$g(x) = \frac{1}{1-x}$$

1. Determine the following functions:

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

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

c.)  $(fg)(x)$

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

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

2. Determine the domain of the following functions. (Note:  $f$  and  $g$  are the same as above.)

a.)  $f + g$

b.)  $\frac{f}{g}$

c.)  $f \circ g$