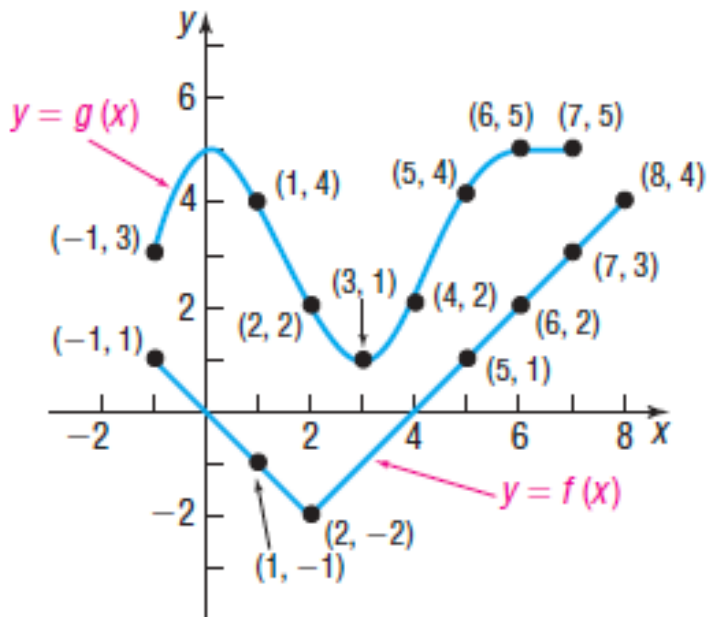# Honors Precalculus Summer Quiz 2

Interval, Set Builder, and Roster may be used. You will be graded on the proper use of each.

1. Evaluate each expression using the functions given.

    (a) $(f \circ g)(1)$

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

    (c) $(g \circ g)5$

2. Suppose that a company has just purchased a new sound system for \$3000. The company chooses to depreciate the sound system using the straight-line method over 3 years.

    (a) Write a linear model that expresses the book value V of the sound system as a function of its age x.

    (b) What is the implied domain of the function found in part (a)?

    (c) Sketch a graph of the linear function.

    (d) What is the book value of the sound system after 2 years?

    (e) When will the sound system have a book value of \$2000?