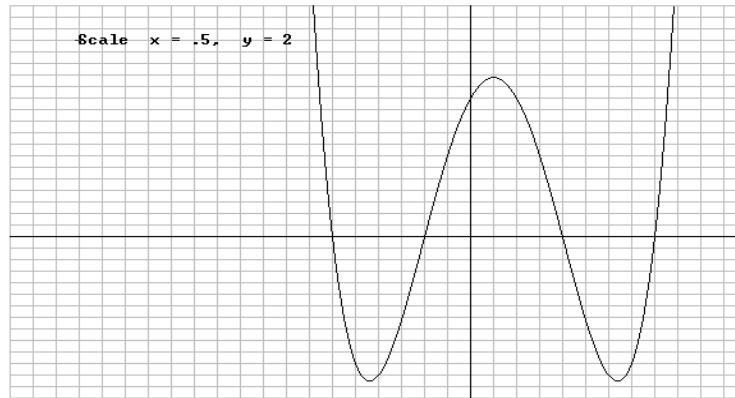Functions Answer Key – these answer were determined by substitution and approximating to twp decimal places.

1. For the given function determine

$f(1) = 24, \quad f(3) = -24, \quad f(-0.5) = 225/16 = 14.06$

$f(-2) = -24, \quad f(-2.5) = -351/16 = -21.93$

Scale x = .5, y = 2

2. Determine the following:

$f(1.5) = 315/16 = 19.68, \qquad f(-0.5) = 75/16 = 4.68,$

$f(-1.5) = -21/16 = -1.31, \qquad f(-2.5) = 27/16 = 1.68,$

$f(-3.5) = -165/16 = -10.31, \qquad g(-0.5) = 105/8 = 13.12,$

$g(0.5) = 15/8 = 1.87, \qquad g(4) = -6,$

$g(4.5) = -105/8 = -13.12, \qquad f(g(0.5)) = f(15/8) = 27807/4096 = 6.78,$

$f(g(3.5)) = f(-15/8) = 27807/4096 = 6.78,$

$f(g(1.5)) = f(-3/8) = 27807/4096 = 6.78,$

$g(f(-0.5)) = g(75/16) = -68499/4096 = -16.72,$

$g(f(-1.5)) = g(-21/16) = 135309/4096 = 33.03,$

$g(f(-3)) = g(0) = 6$

Scale: x = 0.5, y = 1

f(x)

+

g(x)