**Extra Credit 38 - 41**

**Extra #38**

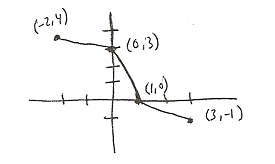
**Find f(g(x)) and g(f(x))**

**1.** f(x) = 2x + 7 **2.** f(x) = **3.** f(x) =

g(x) = -5x – 1 g(x) = -4 g(x) = x - 9

**Extra #39**

**Given the graph of f(x), graph the following and label points**



**1.** f(x- 3) + 2

**2**. – f(x + 2) + 3

**3.** f(- x) - 1

**Extra #40**

**Put each in vertex form, then name the vertex and direction of opening for the graph**

**1.** f(x) = **2**. f(x) = 2

**3.** f(x) = -9 **4.** f(x) = -3

**Write an equation for each parabola, in vertex form**

**5.** vertex at (1, -2), passes through (3, -16)

**6.** vertex at (8, -5), passes through (4, 27)

**Extra #41**

**1. Find the inverse of the relation and determine whether the inverse is a function:**

{(2, 8), (7, 3), (-4, 5), (-1, 8)}

**Determine whether the pair of functions are inverse functions**

**2.** f(x) = **3.** f(x) = 3x - 9

g(x) = 2x – 4 g(x) = -3x + 9

**Find the inverse of the functions**

**4.** f(x) = **5.** h(x) = **6.** g(x) =