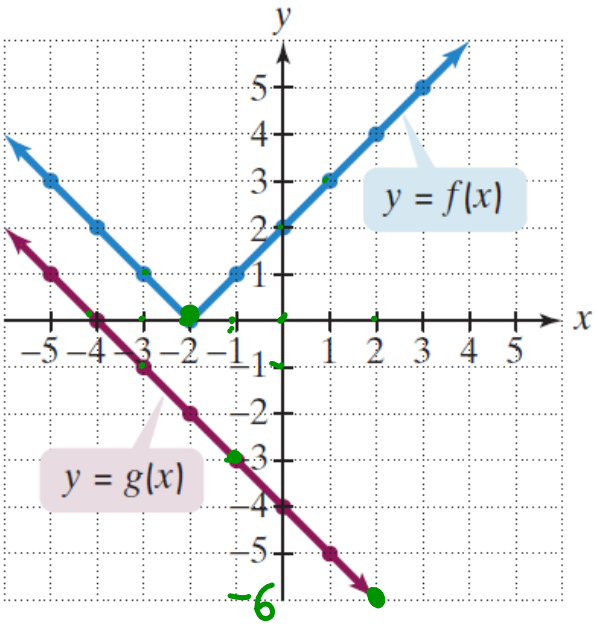
Topic 1.2: Inverse Functions - Day 3

Using Tables/Graphs to Compose Inverse Functions



Day 3 --- HW Exercise Set 1.8
#'s:
53 - 64 all, ~~65~~

Ex1. **Given the graphs of *f* and *g*, evaluate the following:**

a.) $f(1)$ = 3

b.) $f(g(-1))$, $f(-3) = 1$

c.) $(g \circ f)(0)$, $g(2) = -6$

d.) $g^{-1}(-1)$ = -3

e.) $f^{-1}(g(-4))$, $f^{-1}(0) = -2$

Ex2. **Given the tables of *f* and *g*, evaluate the following:**

a.) $g(f(1))$, $g(4) = 2$

b.) $(f \circ g)(8)$, $f(-1) = 0$

c.) $g^{-1}(f(-1))$, $g^{-1}(0) = -2$

d.) $f^{-1}(g^{-1}(2))$, $f^{-1}(4) = 1$

y

x	f(x)
-1	0
0	1
1	4
2	3

y

x	g(x)
-2	0
1	1
4	2
8	-1

Ex3. **Given the functions of *f, g* and *h*, evaluate the following:**

$f(x) = 3x - 4$

$g(x) = 2x + 1$

$h(x) = x^2 - x + 2$

a.) g(f(2)) , $g(2) = 5$

b.) $(f \circ g)(-3)$ → $f(5) = -19$

c.) $g^{-1}(9)$ → $9 = 2x+1$ solve $x = 4$

d.) $f^{-1}(11)$ $11 = 3x-4$, solve $x = 5$

e.) f(g[h(1)]) = 11