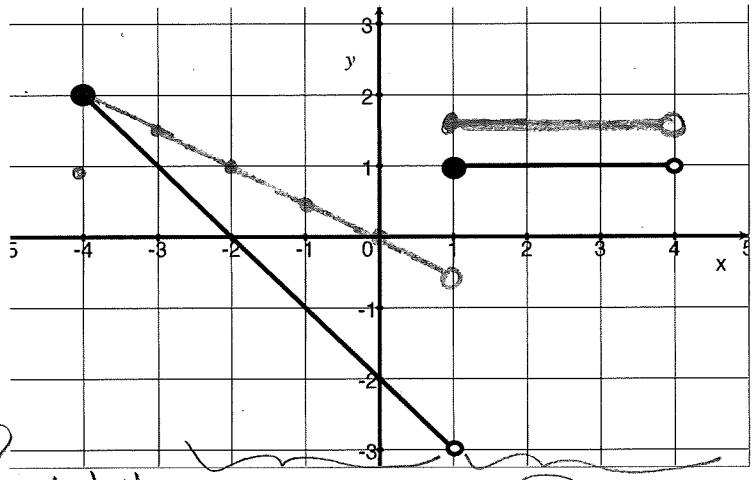
Quiz 2

Key

Show *all* your work. No credit is given without reasonable supporting work. There are *two* sides to this quiz.

1. Let f be the graph below and to the right.



(a) [1] (graph transf. wks #5)
Find the domain of f.

x coords +.5
get 4 +.5

$[-4,1) \cup [1,4)$
or
$[-4,4)$
or $-4 \le x < 4$

(b) [2] (graph transf. wks2 #5)
Graph $\frac{1}{2}f(x)+1$

1) vert stretch by ½ ie mult y by ½
2) shift up one unit

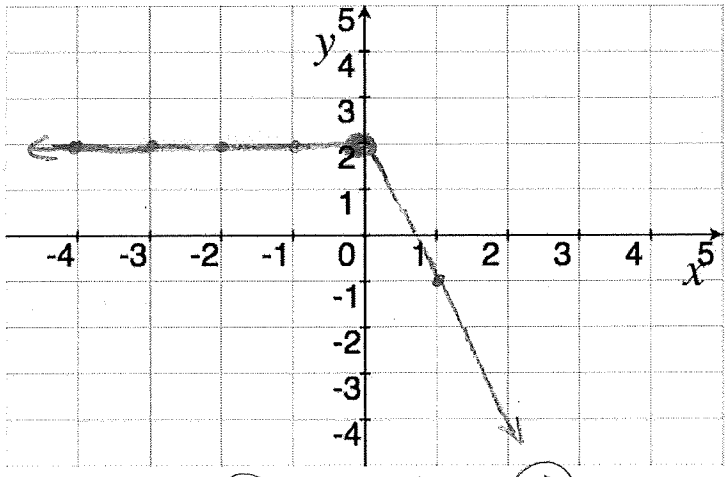
partial +1 (1) +1

2. [4] (WebHW4 #19) Sketch the graph of

$$g(x) = \begin{cases} 2 & \text{if } x < 0 \\ -3x+2 & \text{if } 0 \le x \end{cases}$$

x	g(x)
-4	use 1st line so 2
-3	use 1st line so 2
-2	use 1st line so 2
-1	use 1st line so 2
-.1	use 1st line so 2
0	use 2nd line so $-3(0)+2=2$
1	use 2nd line so $-3(1)+2=-1$

plugging in points +1.5
end points +.5



shape +1.5
y-value +1.5

shape +1.5
slope +1.5
y-intercept +1.5
end points/get 4 +1.5

3. [3] (§1.2 #85) Bob currently has \$130 in a Christmas savings account. Bob begins to deposit \$7 a week into the account. Write an equation to describe how much money is in the account and clearly indicate what variables stand for.

start (+.5) Let

(+.5) y = amount of money in the acct

(+.5) x = weeks since Bob started making contributions.

equation of a line (+.5)

y = original amount + total contributions

= \$130 + 7 \$/weeks × weeks

= 130 + 7x

got it (+1)