

Chp 4 Study Guide

2.) $\{(0, -2), (-1, -4), (-2, 6), (-3, 8)\}$

DOMAIN = X VALUE $\{0, -1, -2, -3\}$

RANGE = Y VALUE $\{-2, -4, 6, 8\}$

4.) $y = \frac{3(x-2)}{5}$ DOMAIN: $\{-8, -3, 7, 12, 17\}$

RANGE = $\{-6, -3, 3, 6, 9\}$

X	$y = \frac{3(x-2)}{5}$	Y
-8	$\frac{3(-8-2)}{5}$	-6
-3	$\frac{3(-3-2)}{5}$	-3
7	$\frac{3(7-2)}{5}$	3
12	$\frac{3(12-2)}{5}$	6
17	$\frac{3(17-2)}{5}$	9

6.) $y = \frac{4+x}{3}$ DOMAIN $\{-7, -1, 2, 5, 8\}$

X	$\frac{4+x}{3}$	Y
-7	$\frac{4-7}{3}$	-1
-1	$\frac{4-1}{3}$	1
2	$\frac{4+2}{3}$	2
5	$\frac{4+5}{3}$	3
8	$\frac{4+8}{3}$	4

RANGE = $\{-1, 1, 2, 3, 4\}$

$$8. \{(1,0), (0,1), (1,2), (2,3)\}$$

	X	y	Junction
+1	-1	0	
+1	0	1	
+1	1	2	
+1	2	3	

$$10. \{(1,7), (2,5), (3,6), (2,4)\}$$

not a function because
x value is 2 twice

$$12. H(x) = 2x(x-1) \text{ find } H(4)$$

$$H(4) = 2(4)(4-1)$$

$$2(4)(3)$$

$$24$$

$$14. f(x) = x+11 \text{ find } f(x+1)$$

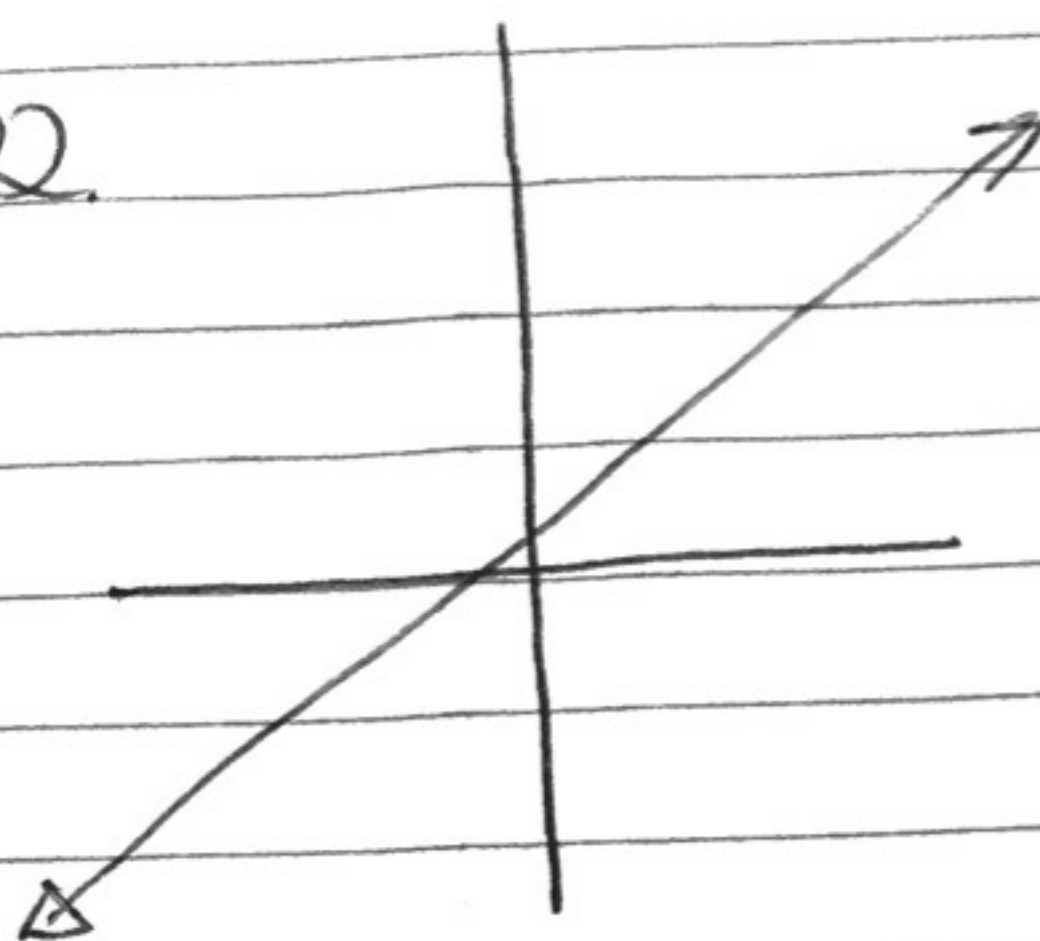
$$f(x+1) = (x+1)+11$$

$$= x+12$$

16. Rule = $(4-2n)$

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n	$\frac{4-2n}{2}$	$f(n)$
0	$\frac{4-2(0)}{2}$	2
1	$\frac{4-2(1)}{2}$	1
2	$\frac{4-2(2)}{2}$	0
3	$\frac{4-2(3)}{2}$	-1
4	$\frac{4-2(4)}{2}$	-2



LINEAR STRAIGHT
LINE

18. Rule $6n-3$

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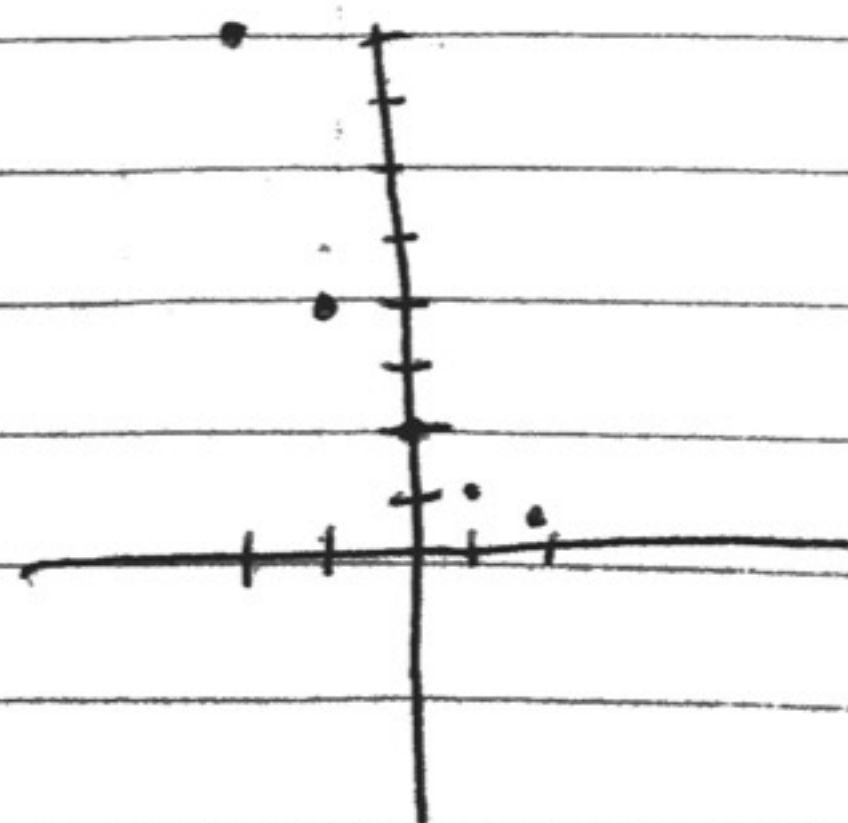
n	$6n-3$	$f(n)$
2	$6(2)-3$	9
3	$6(3)-3$	15
4	$6(4)-3$	21
5	$6(5)-3$	27
6	$6(6)-3$	33

$$f(x) = 2\left(\frac{1}{2}\right)^x$$

x	$2\left(\frac{1}{2}\right)^x$	
-2	$2\left(\frac{1}{2}\right)^{-2} = 2(4)$	8
-1	$2\left(\frac{1}{2}\right)^{-1} = 2$	4
0	$2\left(\frac{1}{2}\right)^0 = 2$	2
1	$2\left(\frac{1}{2}\right)^1 = 1$	1
2	$2\left(\frac{1}{2}\right)^2 = \frac{1}{2}$	$\frac{1}{2}$

20. $y = x^2 + x + 2$

Non linear because
 x^2 creates a
U



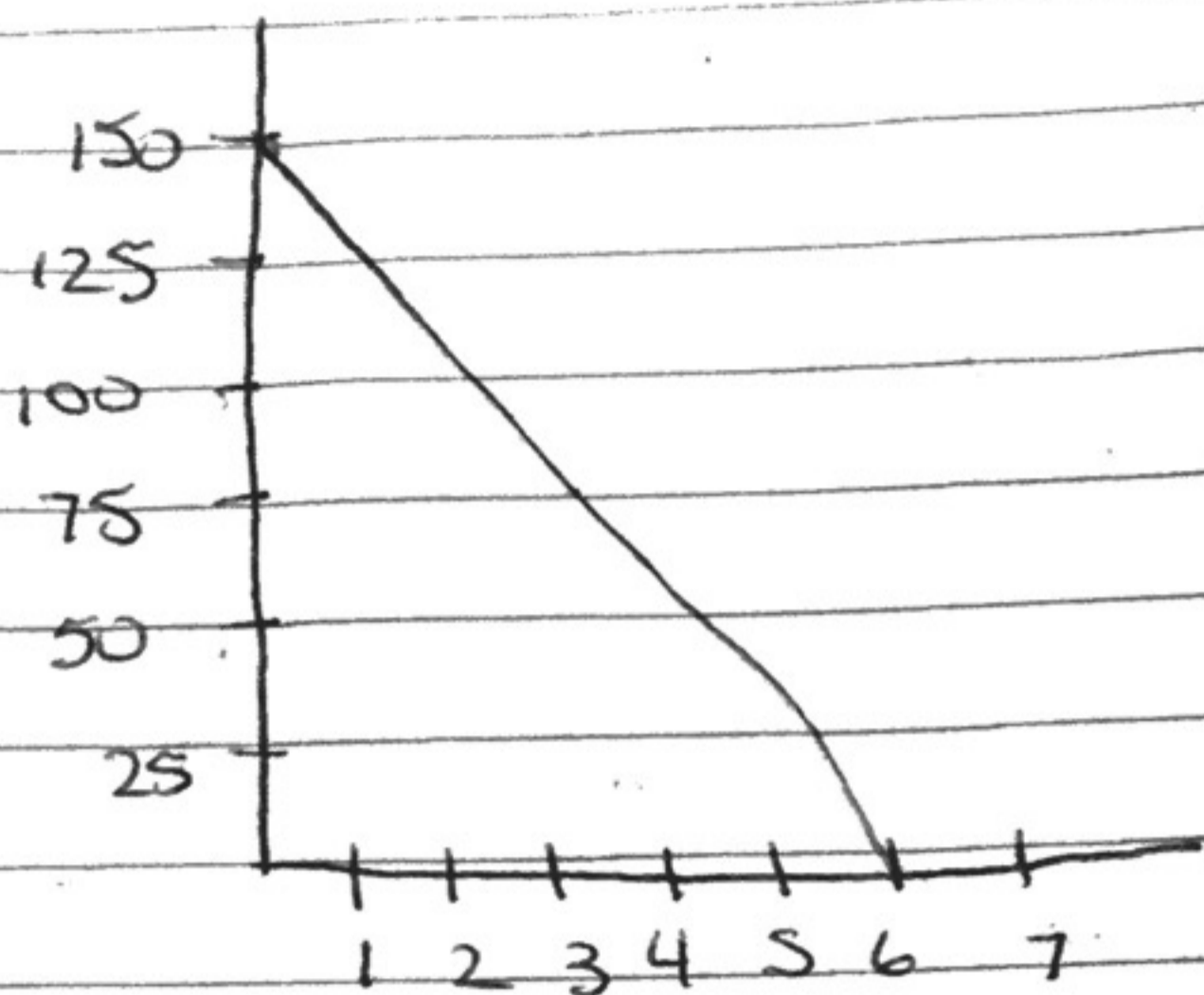
$y > 0$

30. $C = 50h + 55$

$C = 50(17) + 55$
 $850 + 55$
 905

B

26



C Domain $0 \leq t \leq 6$
 Range $0 \leq y \leq 150$

32) $|4K - 2| = 11$

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33 $y = x^2 + 7$
 domain $\{-2, 5, 6\}$

$+4K - 2 = 11$
 $+2 = +2$

	$x^2 + 7$		
-2	$(-2)^2 + 7$	$4 + 7$	11
5	$(5)^2 + 7$	$25 + 7$	32
6	$(6)^2 + 7$	$36 + 7$	43

$\frac{4K}{4} = \frac{13}{4}$
 $K = 3.25$

C 11

$-4K + 2 = 11$
 $-2 -2$
 $-4K = 9$
 $\frac{-4}{-4} = \frac{9}{-4}$

$K = -2.25$

$\therefore K = 3.25$ or $K = -2.25$

$$34 \quad |y + 8| \geq 3$$

$$\pm |y + 8| \geq 3$$

$$+ y + 8 \geq 3$$

$$\quad -8 \quad -8$$

$$y \geq -5$$

or

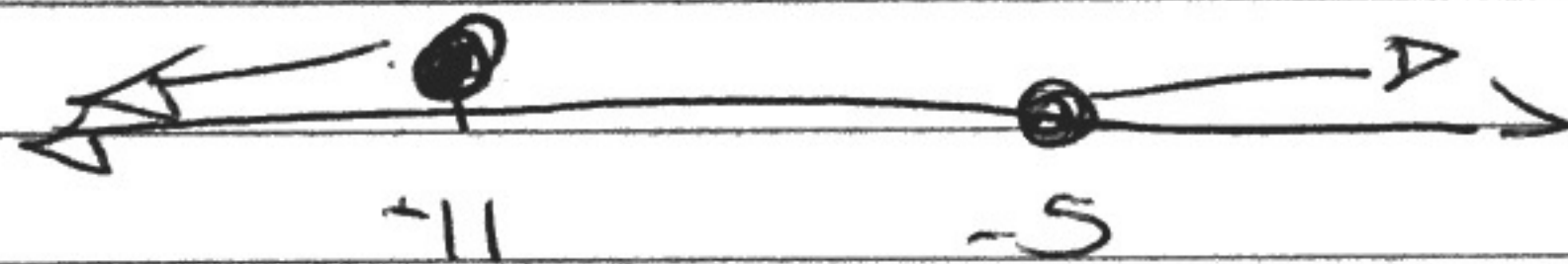
$$- y - 8 \geq 3$$

$$\quad +8 \quad +8$$

$$- y \geq 11$$

$$\quad -1 \quad -1$$

$$y \leq -11$$



$$36 \quad \{d \mid d \leq -7\}$$