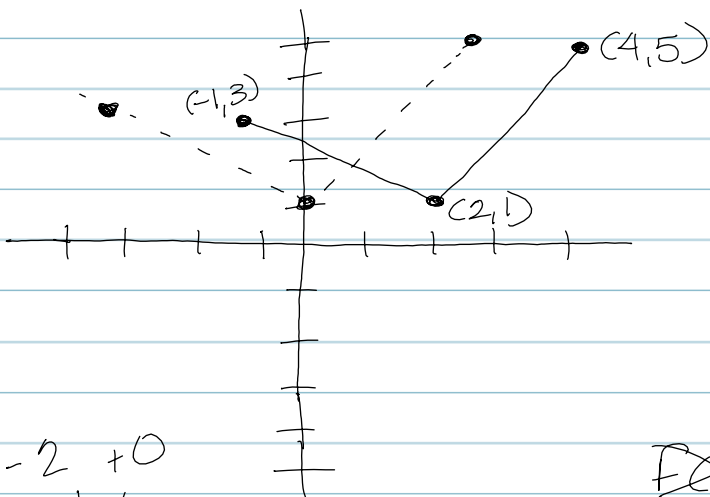


# GENERAL TRANSFORMATIONS :



X	Y
-1	3
2	1
4	5

$f(x-h) + k$

~~$f(x)$~~   $f(x+2)$   
 $(h, k) = (-2, 0)$

graph or find  $f(x+2)$

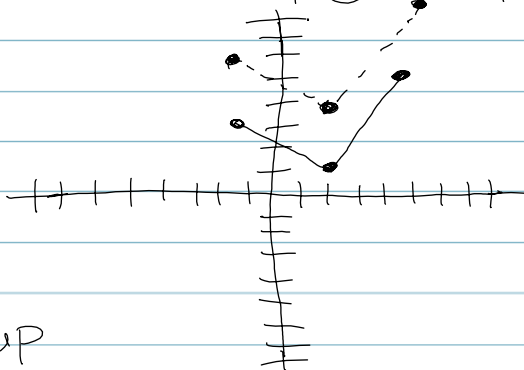
↑  
 X-coordinates move left 2

-2 +0

X	Y	→
-1-2	-3	3
2-2	0	1
4-2	2	5

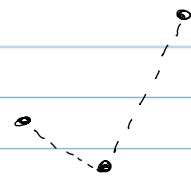
(EX)  $f(x+3)$

$(h, k) = (0, 3)$

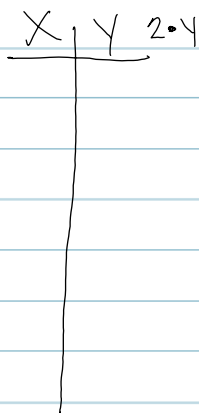


+0 +3

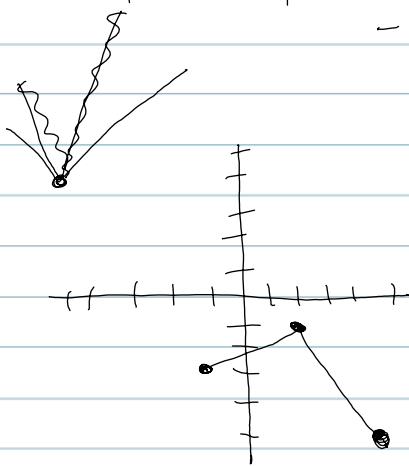
X	Y	
(-1)	(0)	3+3
(2)	(4)	1+3
(4)	(8)	5+3



(EX) narrow up  
 $2f(x)$  (y is multiplied by 2)



(EX)

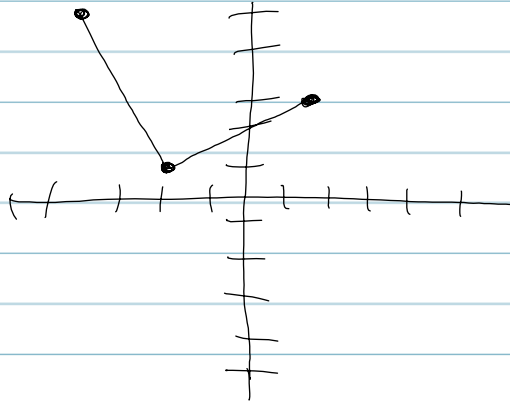


$-f(x)$  ← flipped graph  
 $-1 \cdot y$

X	Y
-1	-3
2	-1
4	-5

$f(-x)$

$x$	$y$
1	3
-2	1
-4	5



$f(2x)$   
(narrow in)

