

The Greatest Integer or Floor Function w/ Graphing

$$y = [x]$$

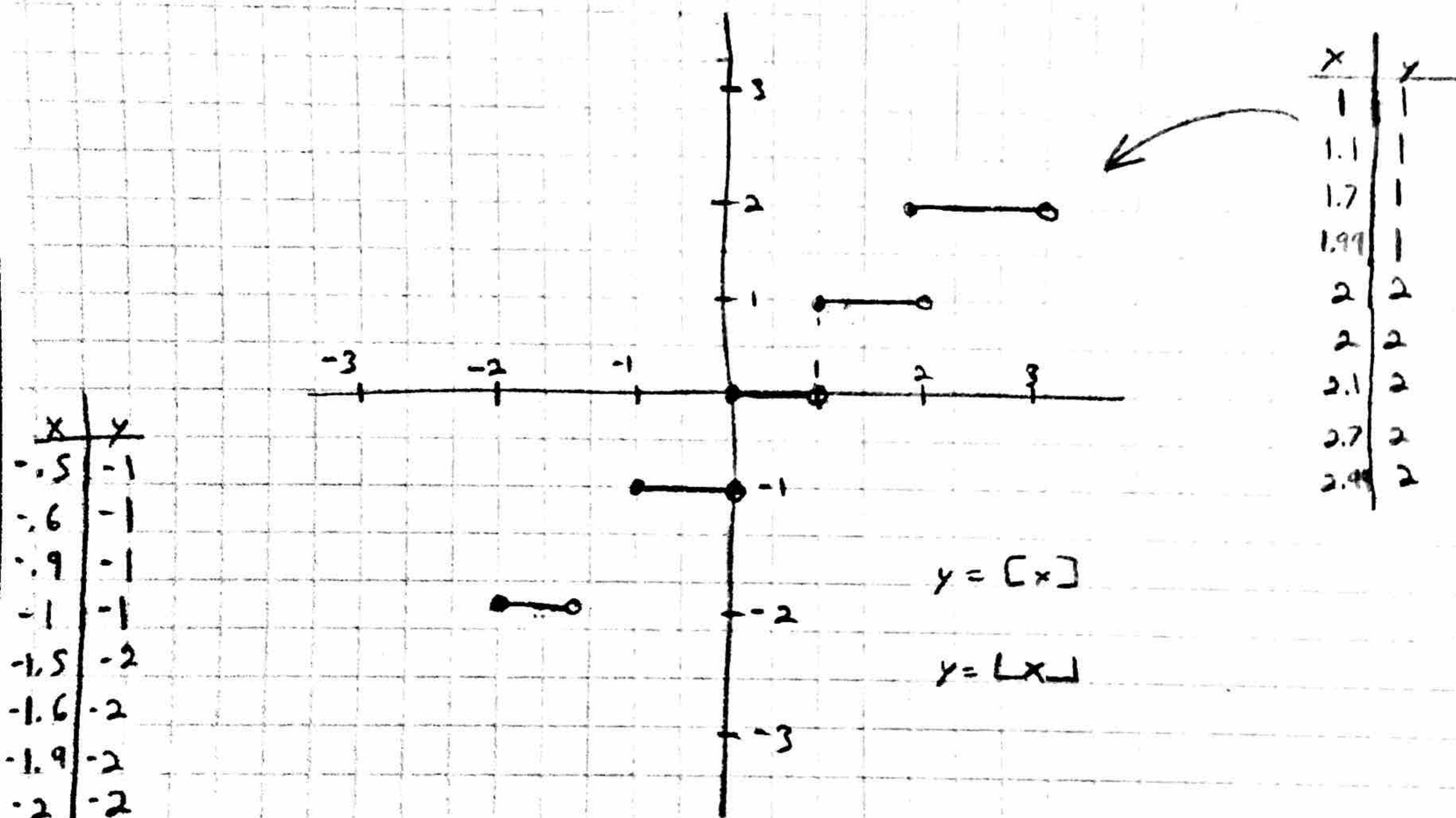
$$y = \lfloor x \rfloor$$

The Greatest Integer Function will Round Any Number Down To The Nearest Integer.

$$y = [x],$$

$$y = [x-3],$$

$$y = [x] - 2$$



Plug in x values and the y values floor down to the lowest integer.

x	y
0.5	0
0.6	0
0.7	0
.99	0
0	0

In this case its



Pretty much you're chopping off truncating the decimal

$$y = \lfloor x \rfloor$$

$$y = f(x-b)$$

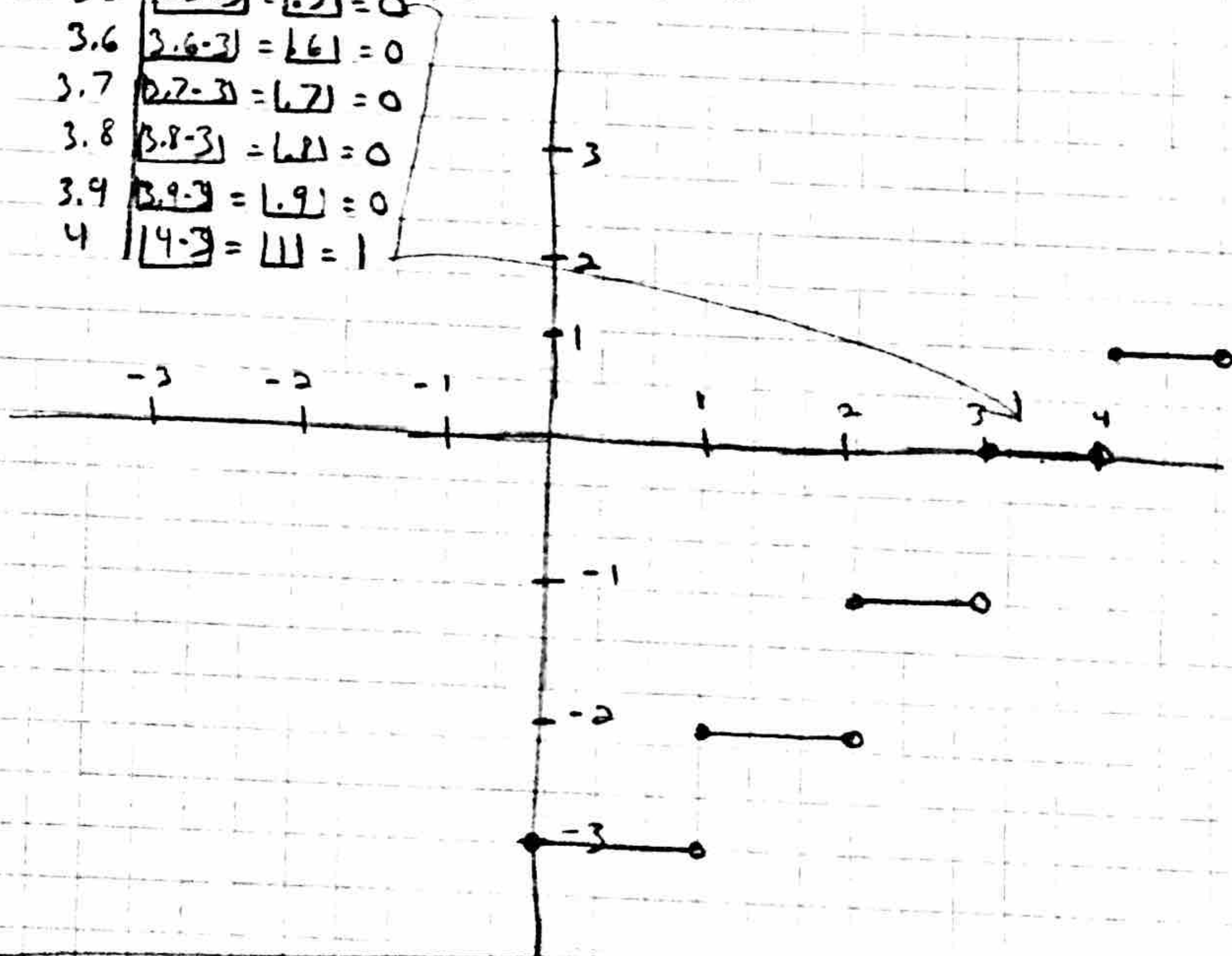
$$y = \lfloor x-3 \rfloor$$

$$y = \lfloor x \rfloor + 2$$

Shift 3 units to the right

x	y
3.5	$\lfloor 3.5-3 \rfloor = \lfloor 0.5 \rfloor = 0$
3.6	$\lfloor 3.6-3 \rfloor = \lfloor 0.6 \rfloor = 0$
3.7	$\lfloor 3.7-3 \rfloor = \lfloor 0.7 \rfloor = 0$
3.8	$\lfloor 3.8-3 \rfloor = \lfloor 0.8 \rfloor = 0$
3.9	$\lfloor 3.9-3 \rfloor = \lfloor 0.9 \rfloor = 0$
4	$\lfloor 4-3 \rfloor = \lfloor 1 \rfloor = 1$

Get The Floor



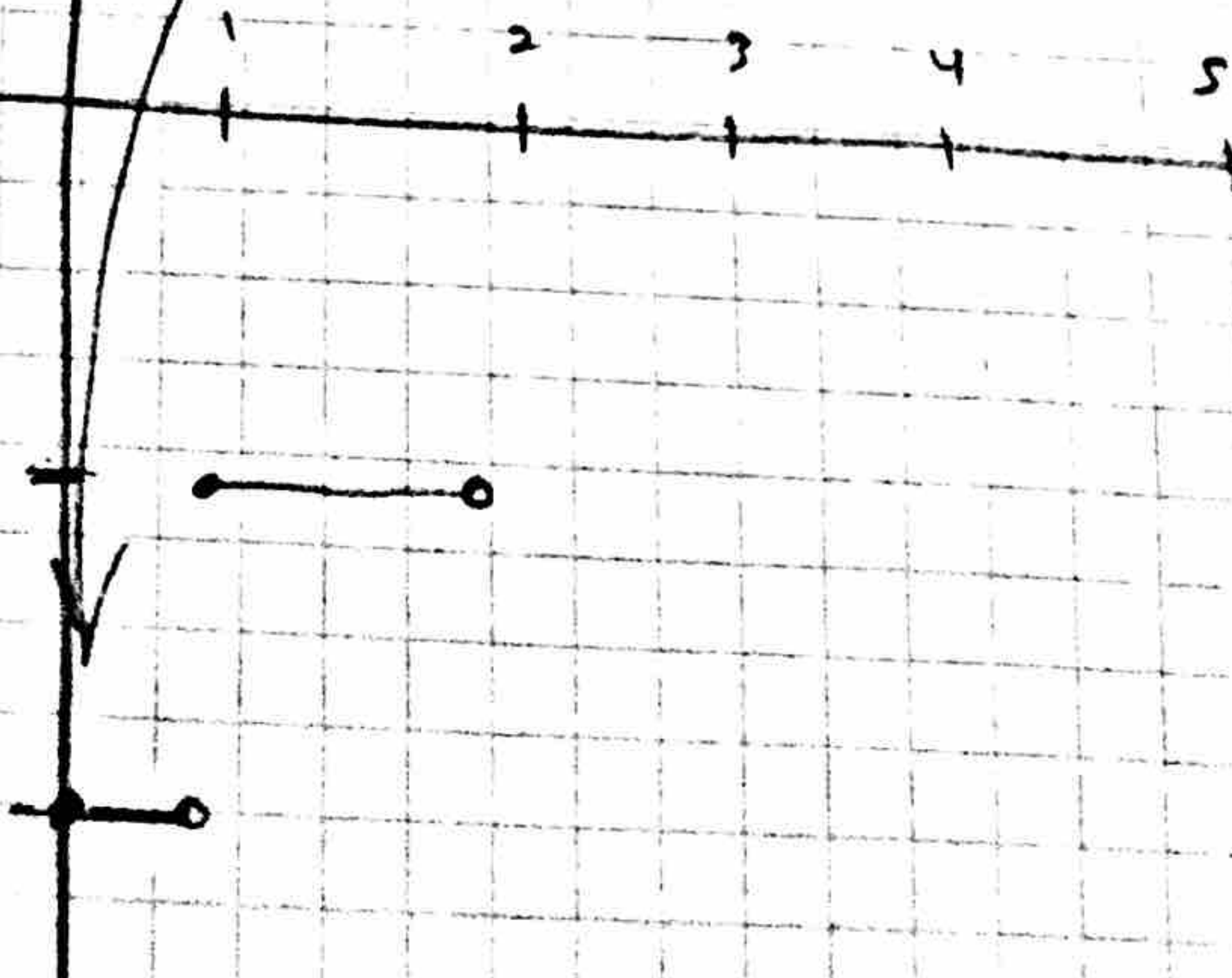
$$y = f(x)-b$$

$y = \lfloor x \rfloor - 2 \rightarrow$ Shift down 2 units

$$y = \lfloor x \rfloor - 2$$

Go down 2 units

Think "Jump move over"
("Drop move over")



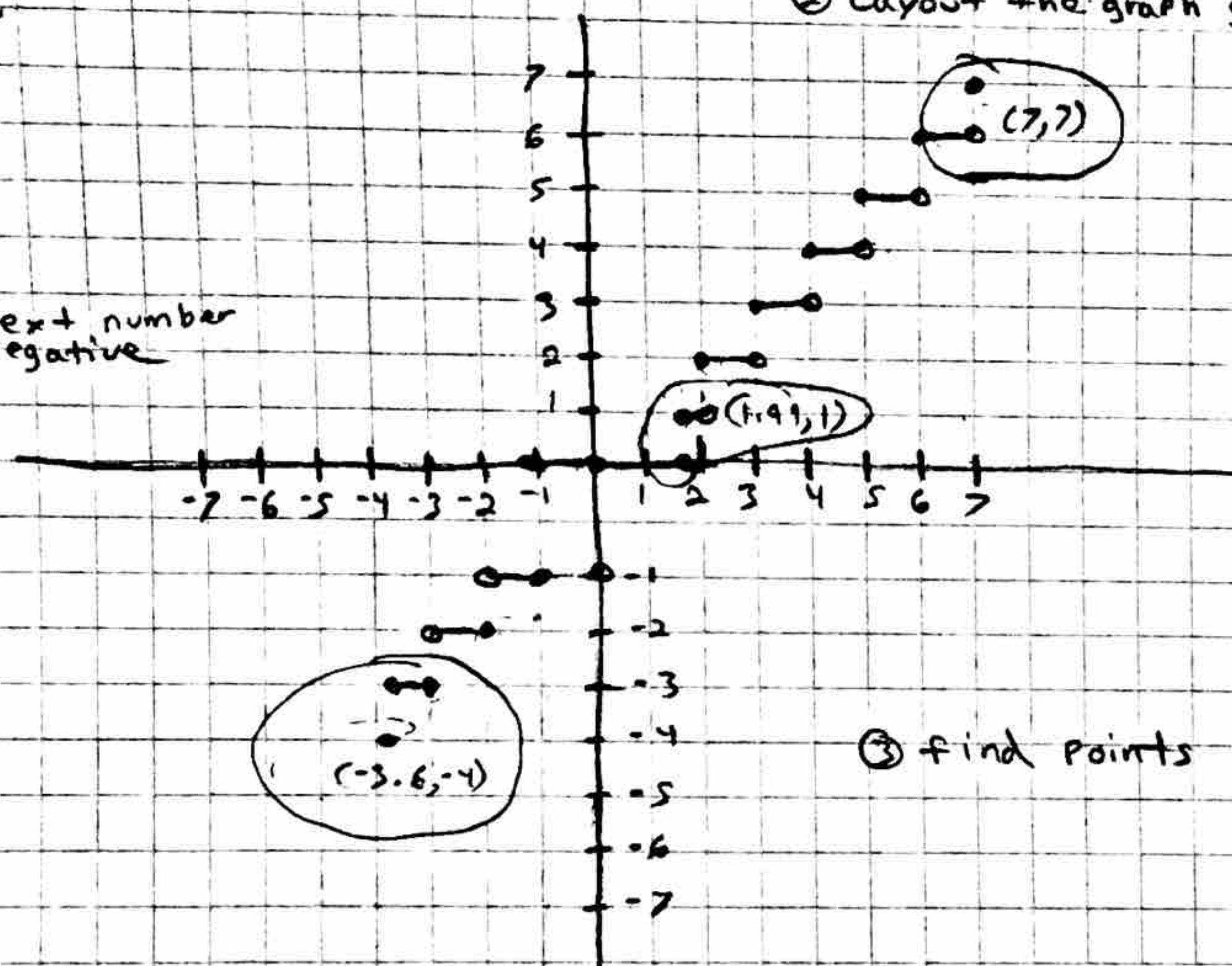
71. $g(x) = \lfloor \lfloor x \rfloor \rfloor$ find $g(1.99)$, $g(7)$, $g(-3.6)$

① Get coordinates

x	y
1.99	1
7	7
-3.6	-4

Go up to next number if negative

② Layout the graph $g(x) = \lfloor \lfloor x \rfloor \rfloor$



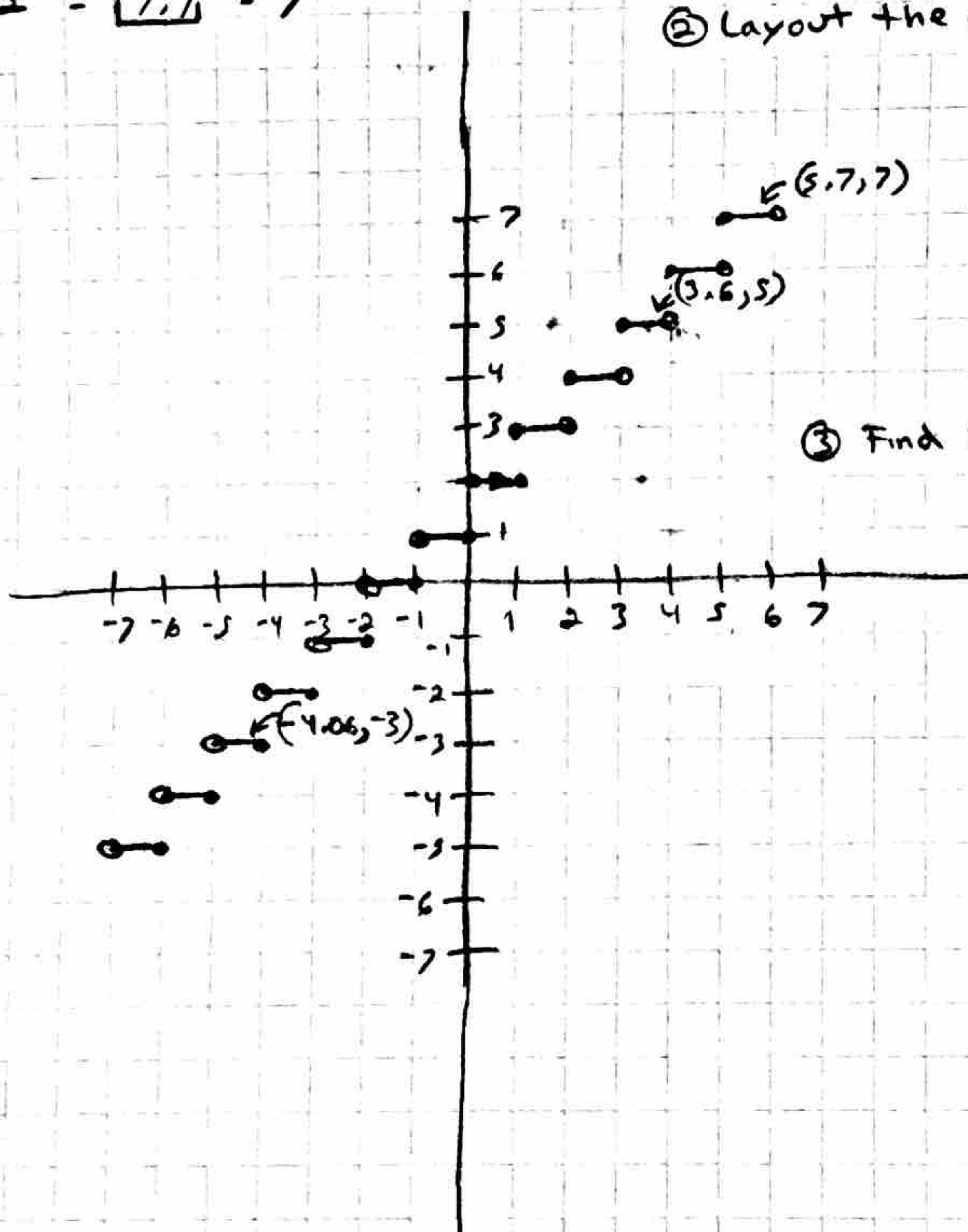
③ find points

73. $f(x) = \lfloor \lfloor x \rfloor \rfloor + 2$, find $f(3.6)$, $f(-4.06)$, $f(5.7)$

① Get points

x	y
3.6	$\lfloor 3.6 \rfloor + 2 = \lfloor 3 \rfloor + 2 = 5$
-4.06	$\lfloor -4.06 \rfloor + 2 = \lfloor -5 \rfloor + 2 = -3$
5.7	$\lfloor 5.7 \rfloor + 2 = \lfloor 5 \rfloor + 2 = 7$

② Layout the graph $f(x) = \lfloor \lfloor x \rfloor \rfloor + 2$



③ Find Points on Graph

75. $f(x) = \lfloor \lfloor x + 4 \rfloor \rfloor$, find $f(-2.4)$, $f(-6.87)$, $f(0.45)$

x	y
-2.4	$\lfloor \lfloor -2.4 + 4 \rfloor \rfloor = \lfloor \lfloor 1.6 \rfloor \rfloor = 1$
-6.87	$\lfloor \lfloor -6.87 + 4 \rfloor \rfloor = \lfloor \lfloor -2.87 \rfloor \rfloor = -3$
0.45	$\lfloor \lfloor 0.45 + 4 \rfloor \rfloor = \lfloor \lfloor 4.45 \rfloor \rfloor = 4$

① Get Points

② Graph $f(x) = \lfloor \lfloor x + 4 \rfloor \rfloor$

