# The Greatest Integer
## or Floor Function
### w/ Graphing

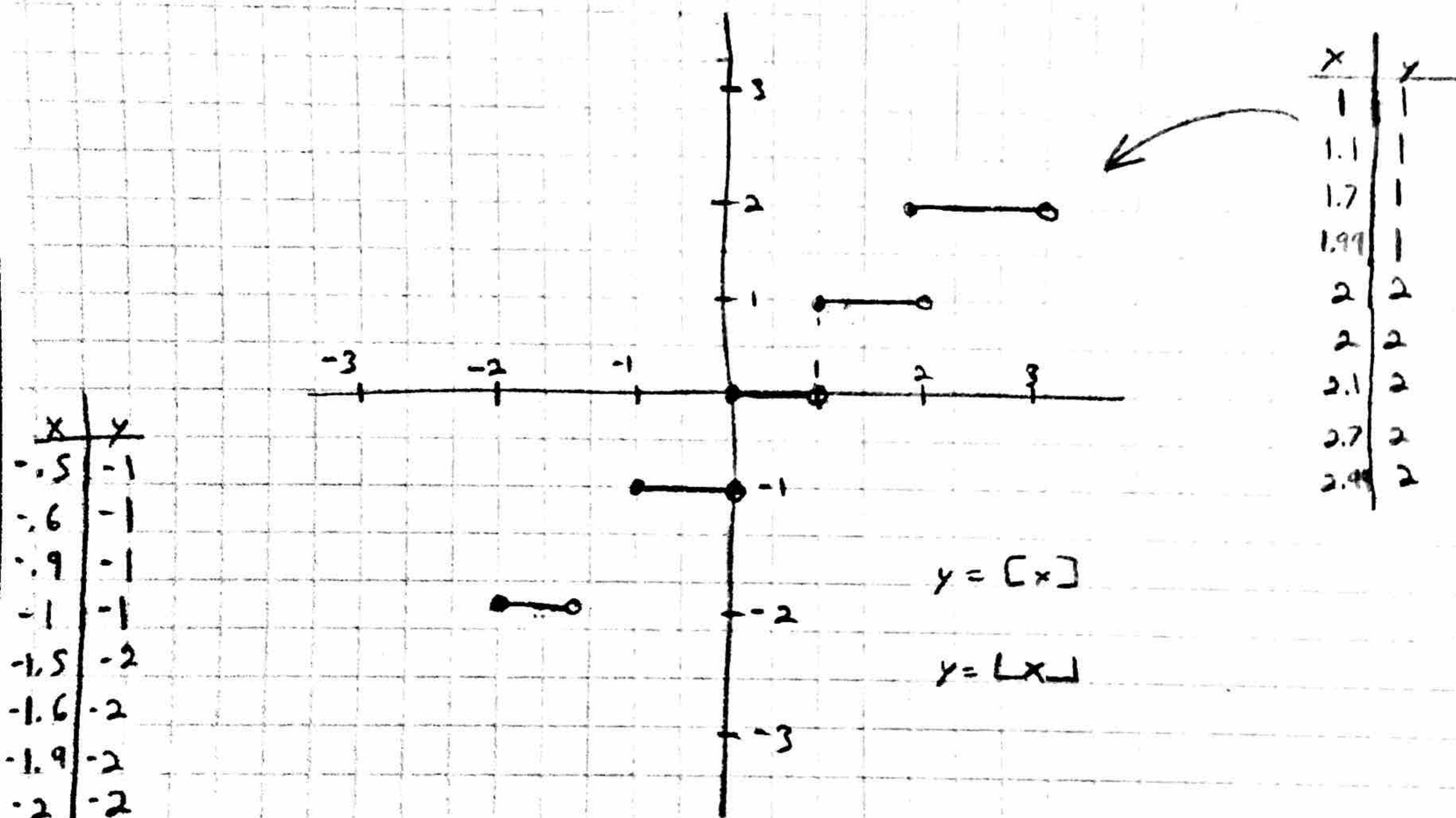$$y = [x] \qquad\qquad y = \lfloor x \rfloor$$

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

$$y = [x], \qquad\qquad y = [x-3], \qquad\qquad y = [x] - 2$$

| X | Y |
|---|---|
| 1 | 1 |
| 1.1 | 1 |
| 1.7 | 1 |
| 1.99 | 1 |
| 2 | 2 |
| 2 | 2 |
| 2.1 | 2 |
| 2.7 | 2 |
| 2.99 | 2 |

$$y = [x]$$

$$y = \lfloor x \rfloor$$

| X | Y |
|---|---|
| -.5 | -1 |
| -.6 | -1 |
| -.9 | -1 |
| -1 | -1 |
| -1.5 | -2 |
| -1.6 | -2 |
| -1.9 | -2 |
| -2 | -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

$y = [x]$,

$y = f(x-b)$

$y = [x-3]$ , $\quad y = [x] - 2$

Shift 3 units to the right →

Get The Floor

| x | y |
|---|---|
| 3.5 | $[3.5-3] = [.5] = 0$ |
| 3.6 | $[3.6-3] = [.6] = 0$ |
| 3.7 | $[3.7-3] = [.7] = 0$ |
| 3.8 | $[3.8-3] = [.8] = 0$ |
| 3.9 | $[3.9-3] = [.9] = 0$ |
| 4 | $[4-3] = [1] = 1$ |
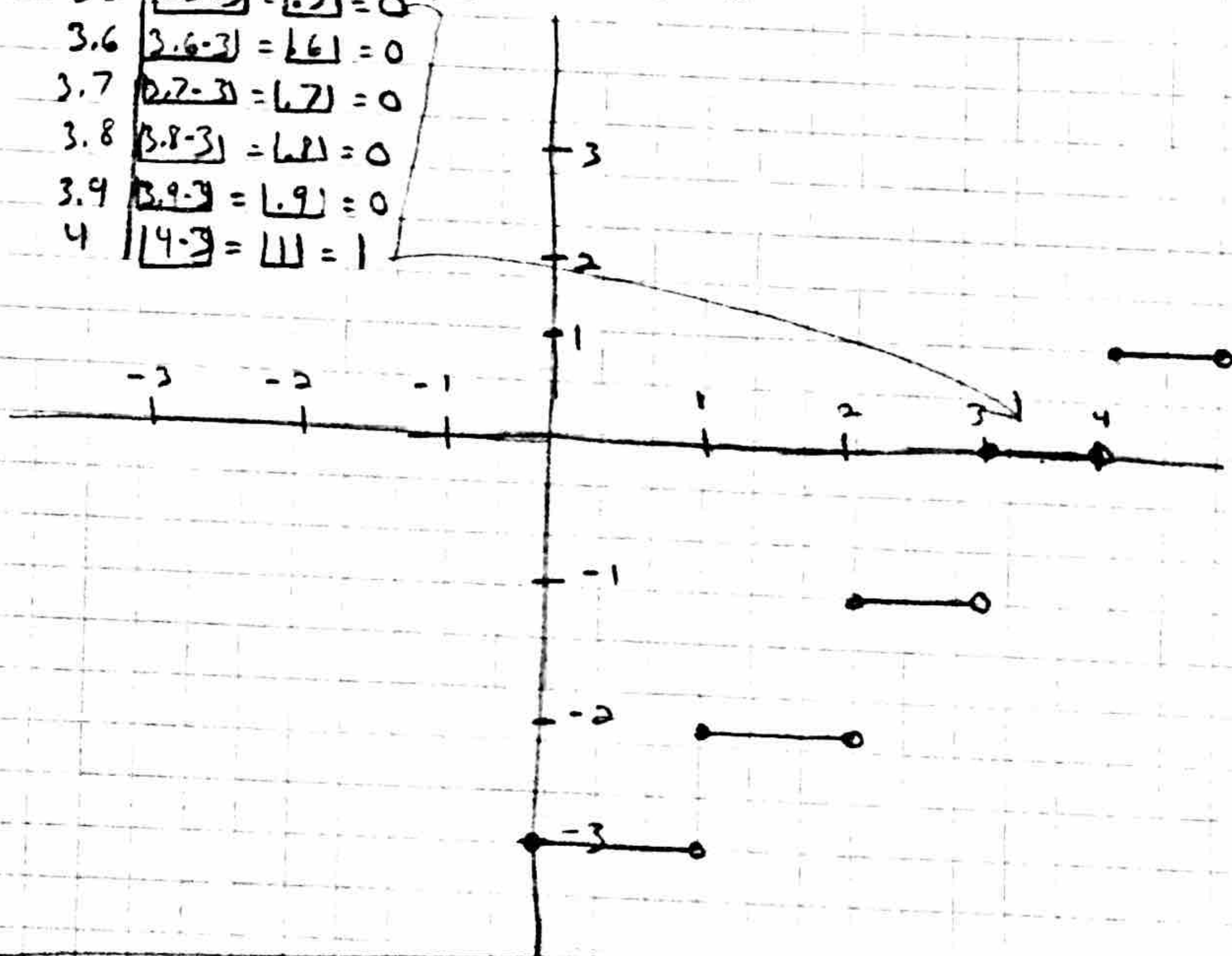
$y = f(x) - b$
$y = [x] - 2 \rightarrow$ Shift down 2 units

$\swarrow y = [x] - 2$

go down 2 units

Think "Jump move over"
"Drop move over"