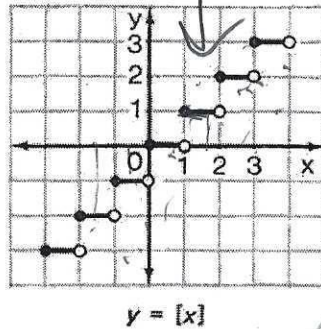


Do Now

$$\{ \dots -3, -2, -1, 0, 1, 2, 3 \dots \}$$

$$\leq$$

\*\* The symbol  $[x]$  (or  $\lfloor x \rfloor$ ) means "the greatest integer equal to or less than  $x$ ." Therefore, the greatest-integer function is indicated by the rule  $y = [x]$ , or  $f(x) = [x]$ . A partial graph of this step function is shown below.



$f(1) = 1$   
 $f(3) = 3$   
 $f(-1.5) = -2$   
 $f(-2.5) = -3$

Examples:

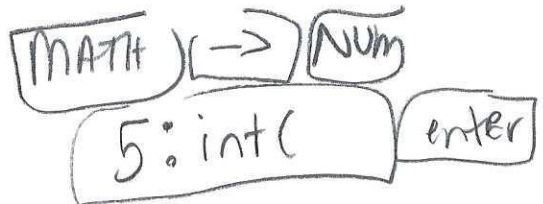
1)  $[2] = 2 \rightarrow x \leq 2$

2)  $[3.98] = 3 \rightarrow x \leq 3.98$

3)  $[-5.6] = -6 \rightarrow x \leq -5.6$

4)  $[6.4] = 6 \rightarrow x \leq 6.4$

Calculator:



Now you try!

\* integer = x

Evaluate the following:

1)  $[5.5] =$

$x \leq 5.5$   
 $[5]$

2)  $[-8.35] =$

$x \leq -8.35$   
 $[-9]$

3)  $[4] =$

$x \leq 4$   
 $[4]$

4)  $\left[2\frac{2}{3}\right] =$

$x \leq 2\frac{2}{3}$   
 $[2]$

5)  $[7.86] =$

$x \leq 7.86$   
 $[7]$

6)  $[-3.64] =$

$x \leq -3.64$   
 $[-4]$