

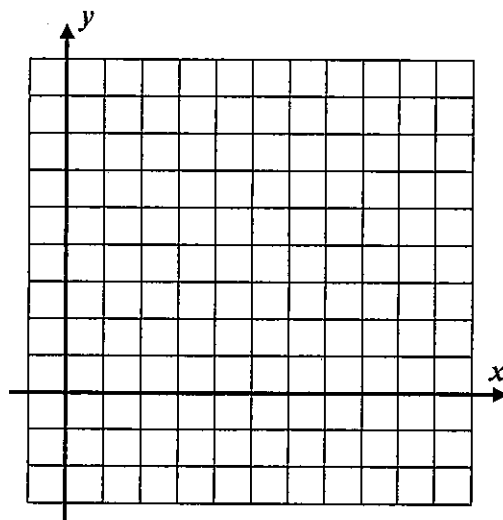
Step functions are another type of function that is related to the linear family. Its graph will reflect its well chosen name.

Exercise #4: Consider the step function given by $f(x) = \begin{cases} 2 & 0 \leq x < 5 \\ 6 & 5 \leq x \leq 10 \end{cases}$.

(a) Evaluate each of the following. After you do your evaluation, write down what coordinate point must lie on the graph as a result of the calculation.

$f(0) =$ $f(2) =$ $f(4) =$

$f(5) =$ $f(7) =$ $f(10) =$



(b) Graph the step function on the grid to the right.

Step functions can arise in the real world whenever the **output** to a particular function is **constant** over particular ranges. Here's an example

Exercise #5: At a local amusement park, the park charges an admission based on age. Graph the amount of money a person would have to pay for admission based on their age. Remember that someone who is one day short of 4 years old can consider themselves three and under.

Age Range	Price
3 and under	Free
8 and under	\$4.00
16 and under	\$8.00
17 and older	\$12.00

