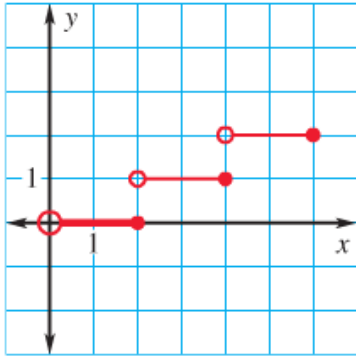


Step Functions Practice

Write a piecewise function for each step function shown. Then give the **domain** and **range** of the function.

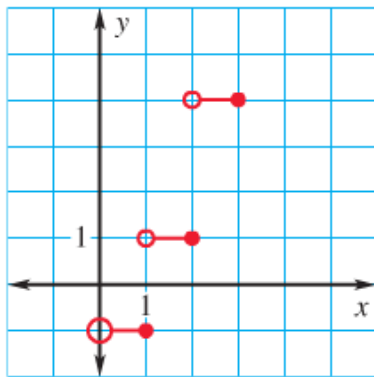
1.


 $f(x) = \left\{ \begin{array}{l} \end{array} \right.$

Domain: _____

Range: _____

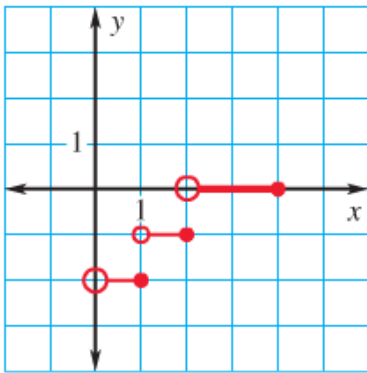
2.


 $f(x) = \left\{ \begin{array}{l} \end{array} \right.$

Domain: _____

Range: _____

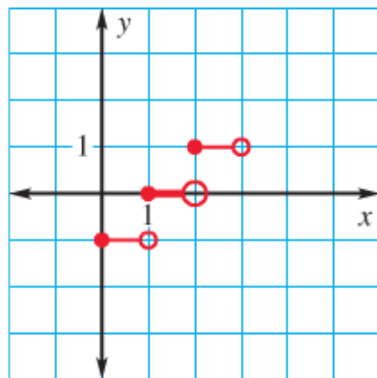
3.


 $f(x) = \left\{ \begin{array}{l} \end{array} \right.$

Domain: _____

Range: _____

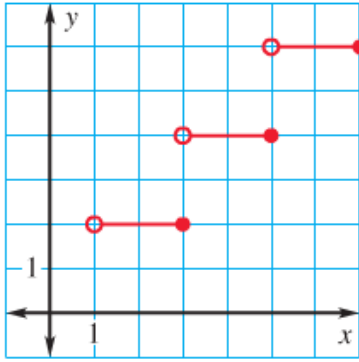
4.


 $f(x) = \left\{ \begin{array}{l} \end{array} \right.$

Domain: _____

Range: _____

5.

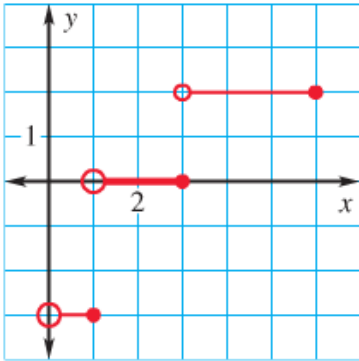


$f(x) = \left\{ \right.$

Domain: _____

Range: _____

6.

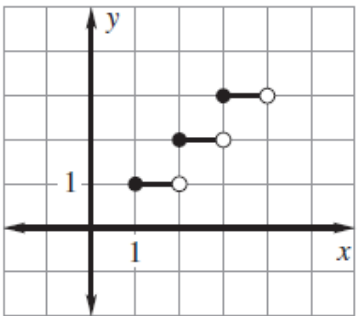


$f(x) = \left\{ \right.$

Domain: _____

Range: _____

7.

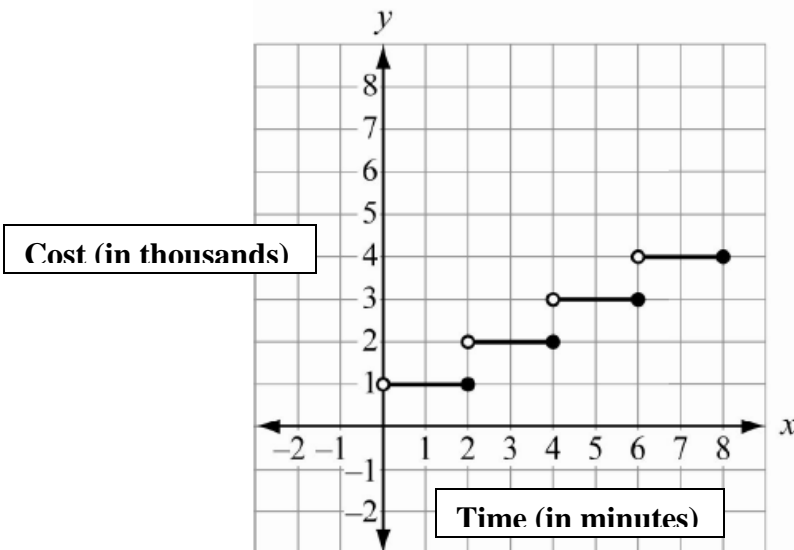


$f(x) = \left\{ \right.$

Domain: _____

Range: _____

8. Jim Smith invented a new cleaner, called Blingo, and wants to create an infomercial to market it. His local television station charges \$1000 for every 2 minutes of air time. They will allow the infomercial to last a maximum of 8 minutes before it will be cut off. The graph that represents this step function is seen below.



a. What is the domain and range of the function?

b. How much will it cost for 5 minutes of air time?

c. For what time interval will the air time cost \$4000?

d. Jim ended up paying \$2000 for his infomercial to air. How much air time did he use?