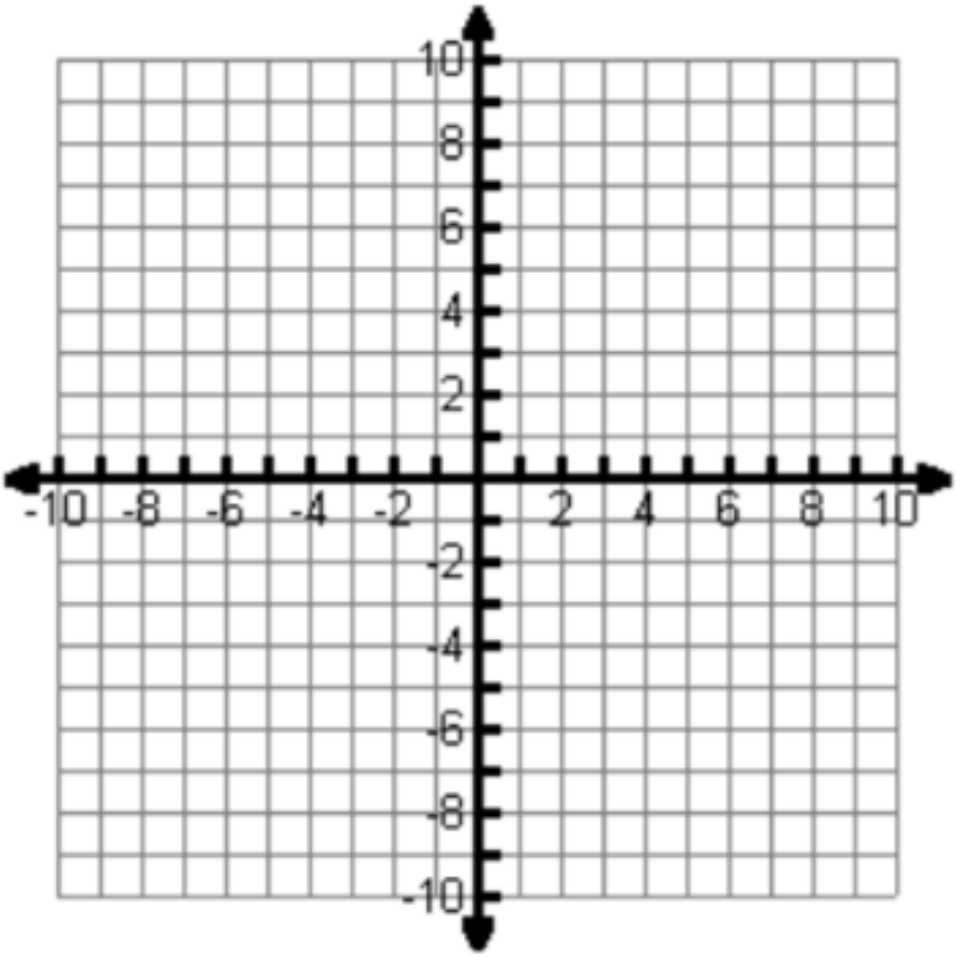
Math 119 Summer 2017
Week 2 written Quiz

Name_____

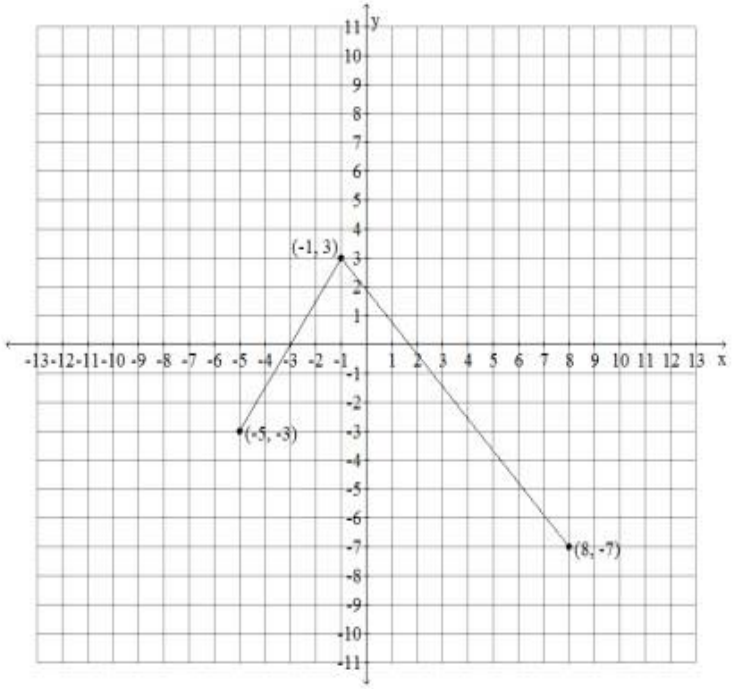
You MUST show all your work to get credit.

1.) Graph the following piecewise function. Identify any point of discontinuity. State Domain and Range.

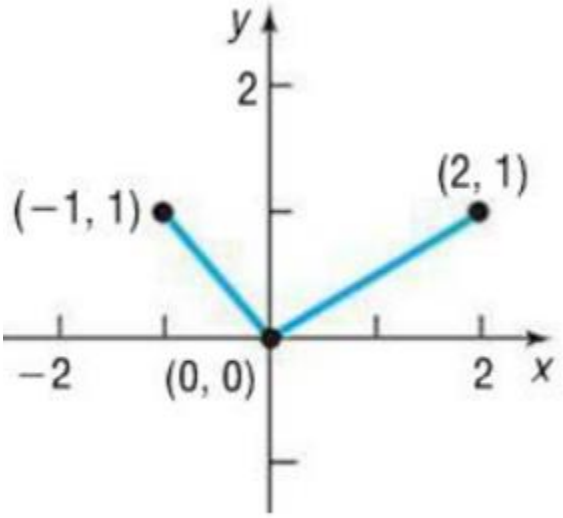
$$f(x)=\begin{cases}5 & \text{if} \quad x<-2\\ \frac{1}{2}x-6 & \text{if} \quad -2\le x\le 6\\ -2x+10 & \text{if} \quad x>6\end{cases}$$



2.) **T**he graph of the function $\boldsymbol{f(x)}$ is shown below. Use the graph of $\boldsymbol{f(x)}$ as the first step toward graphing $\boldsymbol{g(x) = -f(x-1)-2}$. Clearly graph new graph and label 3 points on new graph.



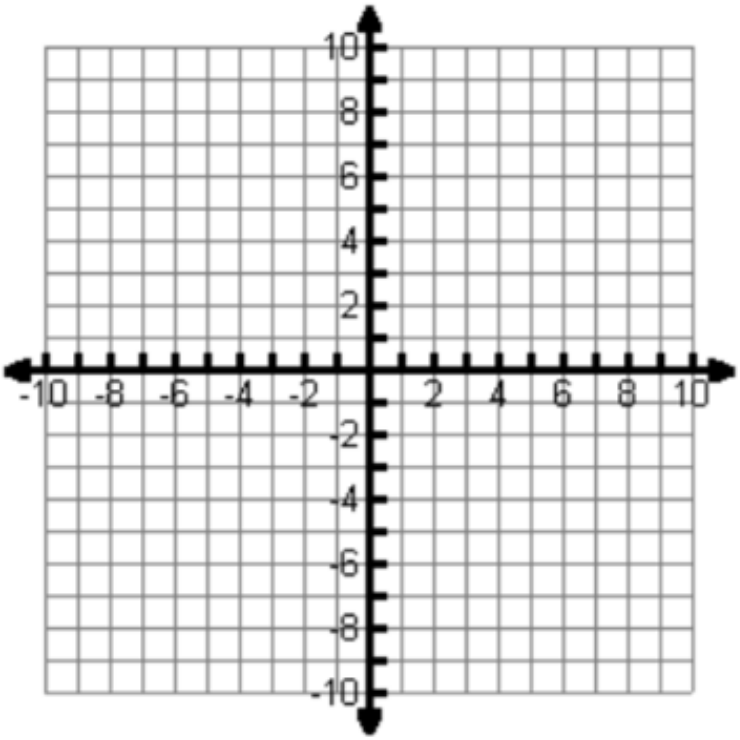
3.) The graph of a piecewise-defined function is given. Write a definition for the function. State the domain and range.



$$f(x) = \begin{cases} \\ \\ \end{cases}$$

4.) In the following Problems:
(a) Determine the slope and y-intercept of each linear function.
(b) Find the average rate of change of each function.
(c) Graph the function. Label the intercepts.
(d) Determine whether the function is increasing, decreasing, or constant.

f(*x*) = -4*x* + 7



5.)Suppose the point (2, 4) is on the graph of y = f(x). Find a point on the graph of the given function. ***y = 2 f (x+1) -1***

Answer: