Sec 1.6 Piecewise Functions

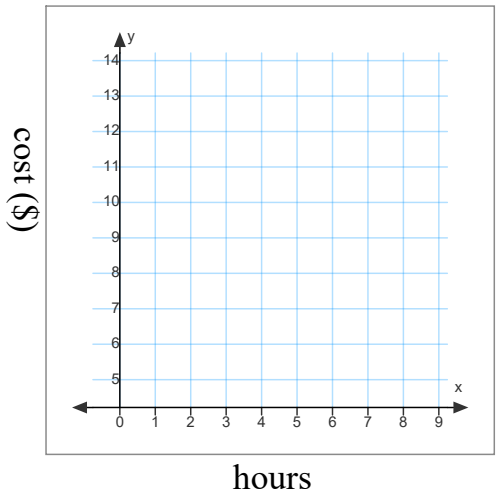
Often times, a single function cannot model a situation completely.
A piecewise function is used to model the situation in different ways in different intervals.

Add the definition from p47 to your definition page.

Sep 14-12:53 PM

Read the example of p46 of the parking scenario.

TIME (h)	COST ($)
0-1	5
1-2	12.50
2+	$13 + $3/hour



Be careful of the transition times

Sep 14-1:00 PM

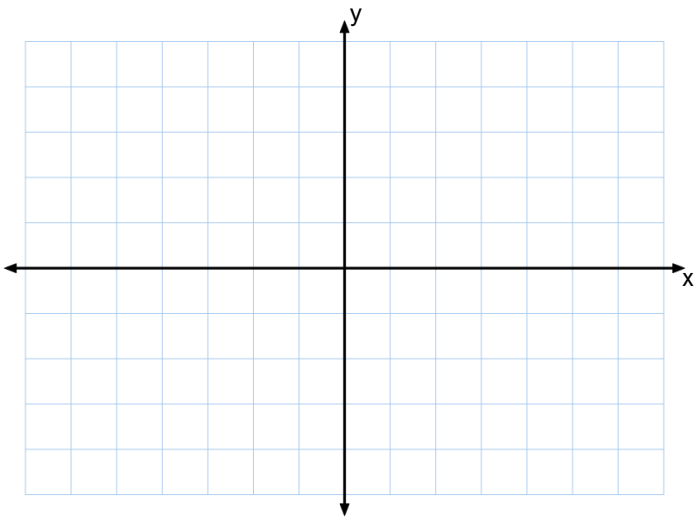
Watch for:

-intervals
-discontinuities
-end points of each piece

Sep 14-1:08 PM

Example:
Graph

$$f(x)=\begin{cases}2x & if\ x\le 3\\ x^2-5 & if\ x\rangle 3\end{cases}$$



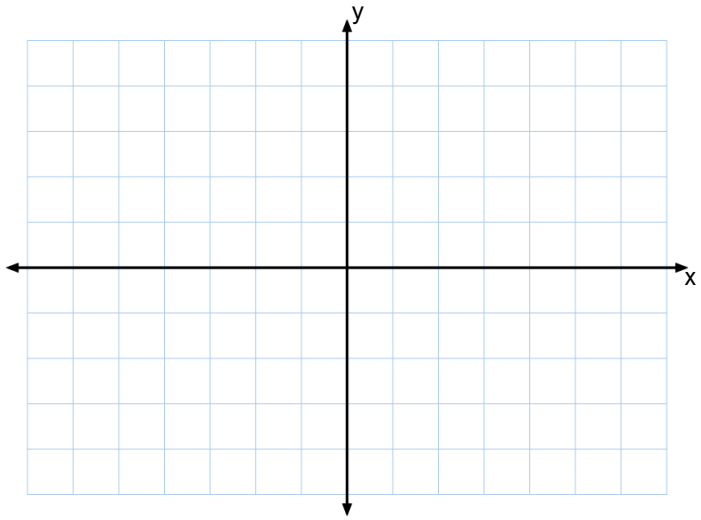
Where is this function discontinuous?
What is the domain and range?
What are the intervals of increase and decrease?

Sep 14-1:08 PM

Example 2

Graph:

$$f(x)=\begin{cases} x+1, \text{ if } x\le 0 \\ 2x+1, \text{ if } 0<x<3 \\ 4-x^2 \text{ if } x\ge 3 \end{cases}$$



Where is this function discontinuous?
What is the domain and range?
What are the intervals of increase and decrease?

Feb 10-2:03 PM

Homework

p51 #1acd, 2, 3, 6

Sep 14-1:18 PM