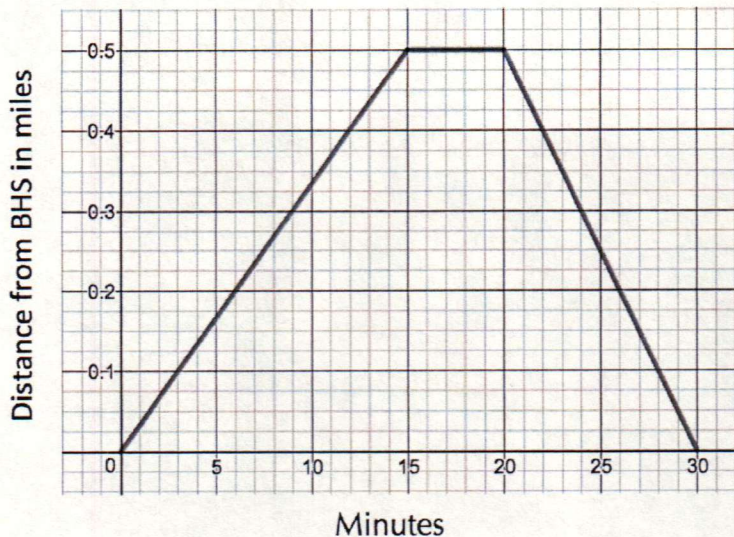


Unit 3.1 – Features of Functions

Intro



What is a scenario that would fit this graph?

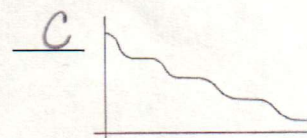
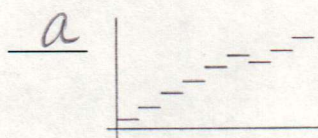
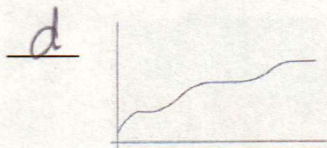
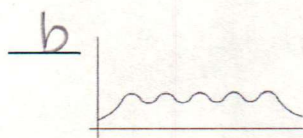
Ms. Ped walked to Ava (coffee shop) and then back to BHS

What are some observations you can make about the graph?

There are positive, negative, and zero slopes.

Never more than one distance away at any one time

Look at each graph, then match each graph with a scenario that would make sense.



- a) The amount of money in a savings account where there are regular deposits and some withdrawals are made.  
*balance stays the same until a new event*
- b) The temperature of the oven on a day when your mom bakes several batches of cookies  
*open / close door to put cookies in / out*
- c) The amount of gasoline on hand at the gas station before a tanker truck delivers more.  
*people buy gas, amount goes down*
- d) The amount of mileage recorded on the odometer of a delivery truck over time.  
*the more the truck is used it gets more miles.*

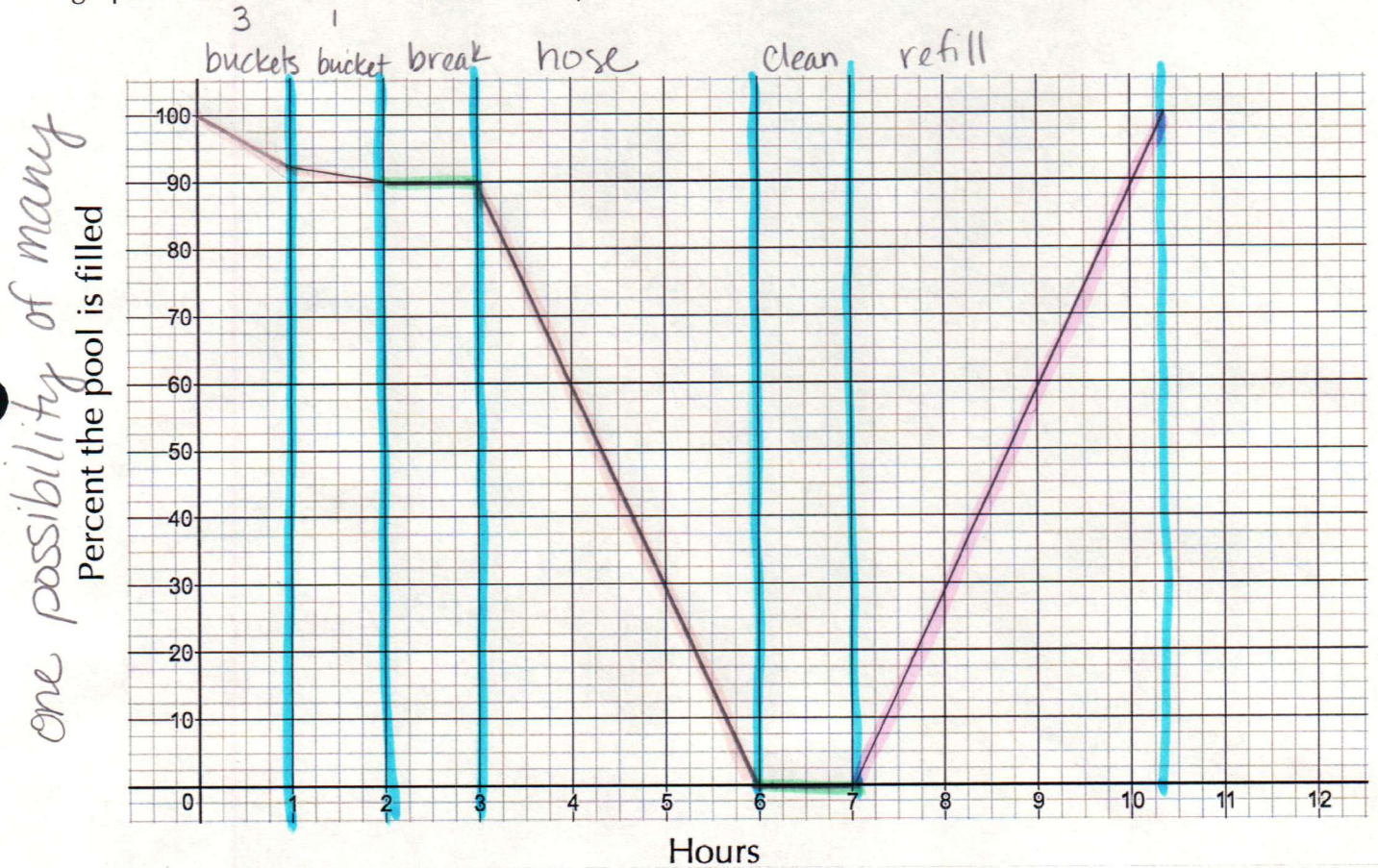


Sylvia's family has a backyard pool and she wants to have a pool party. Her parents said if she emptied, cleaned, and refilled, she could have her party.

Sylvia took these six actions in some order (not necessarily the order given) and only one activity happened at a time:

- Removed water with a single bucket
- Drained water with a hose (same rate as filling with a hose)
- Worked with two friends to remove water with three buckets
- Filled the pool with a hose
- Cleaned the pool
- Took a break

Create a graph that is a possible representation of the situation and includes all six actions using the graph below. Label where each activity starts and ends.



Positive Slope

Negative Slope

Zero Slope

What other observations can you make?

The pool was filled one amount at any time.  
 All 3 types of slope are represented.  
 Only one kind of slope happens at a time.