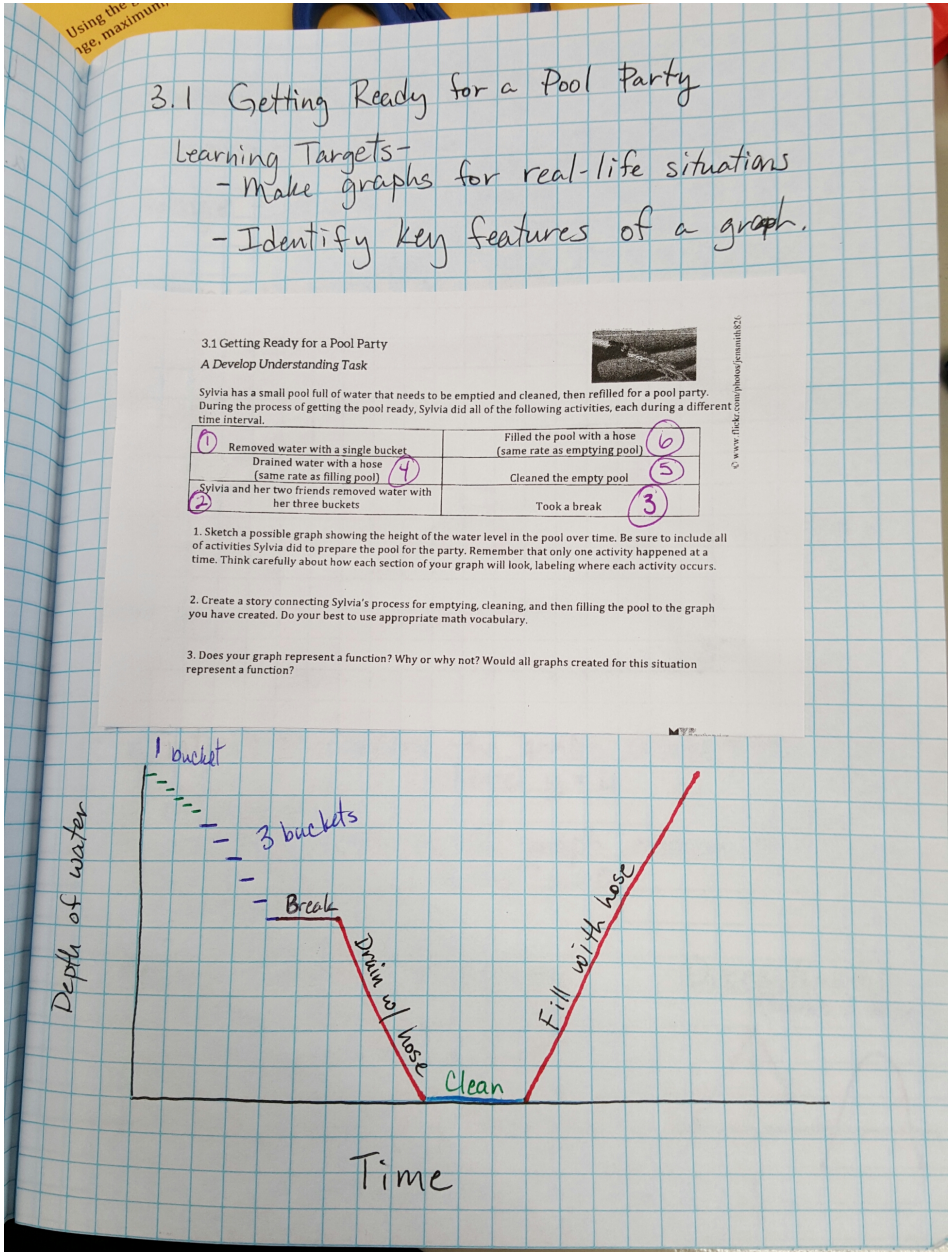
3.1 Notes. Get the glue-in from Mrs. Izatt



3.1 Getting Ready for a Pool Party

Learning Targets-
- Make graphs for real-life situations
- Identify key features of a graph.

3.1 Getting Ready for a Pool Party

A Develop Understanding Task

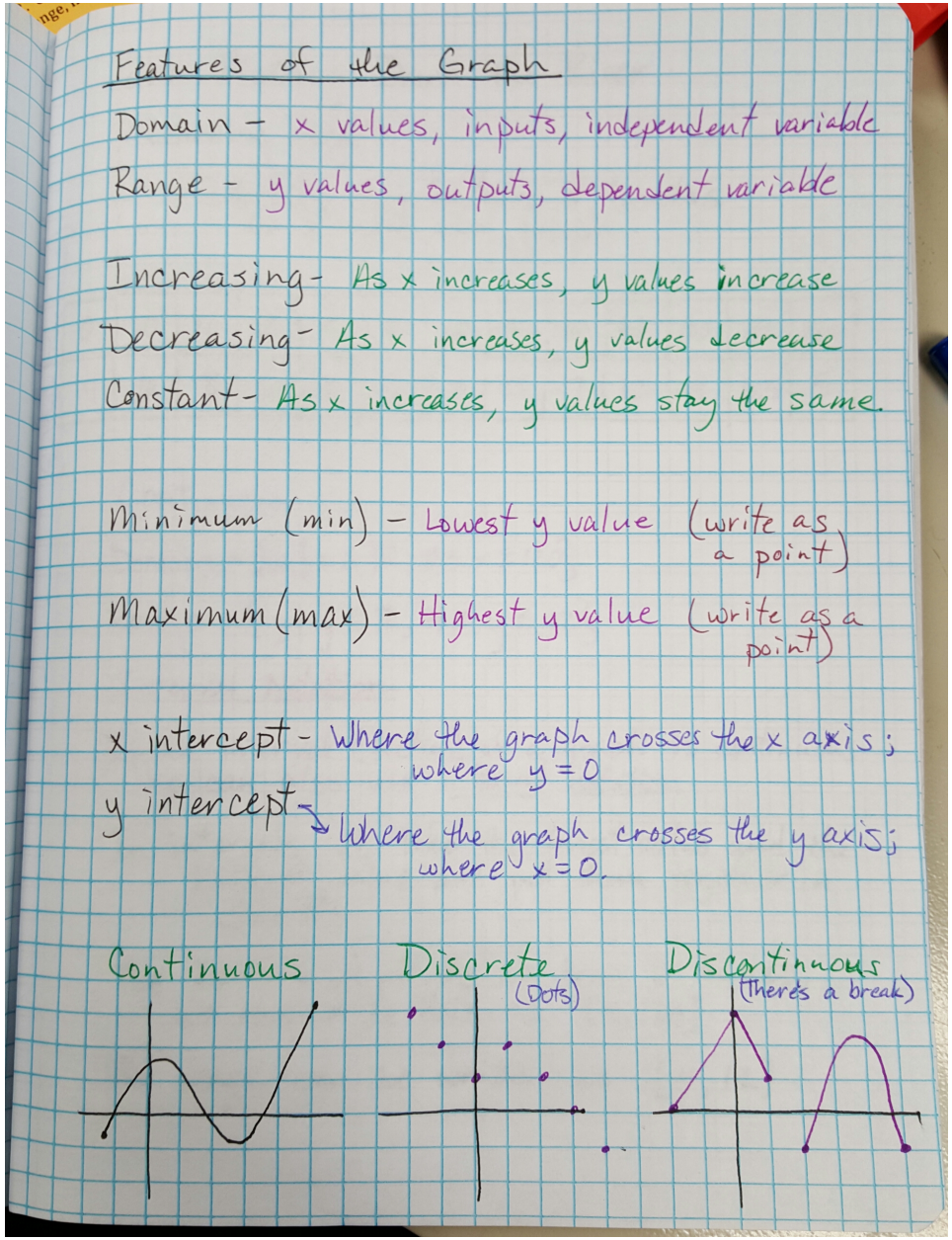
Sylvia has a small pool full of water that needs to be emptied and cleaned, then refilled for a pool party. During the process of getting the pool ready, Sylvia did all of the following activities, each during a different time interval.

(1) Removed water with a single bucket	Filled the pool with a hose (same rate as emptying pool) (6)
Drained water with a hose (same rate as filling pool) (4)	Cleaned the empty pool (5)
(2) Sylvia and her two friends removed water with her three buckets	Took a break (3)

1. Sketch a possible graph showing the height of the water level in the pool over time. Be sure to include all of activities Sylvia did to prepare the pool for the party. Remember that only one activity happened at a time. Think carefully about how each section of your graph will look, labeling where each activity occurs.

2. Create a story connecting Sylvia's process for emptying, cleaning, and then filling the pool to the graph you have created. Do your best to use appropriate math vocabulary.

3. Does your graph represent a function? Why or why not? Would all graphs created for this situation represent a function?



Features of the Graph

Domain - x values, inputs, independent variable

Range - y values, outputs, dependent variable

Increasing - As x increases, y values increase

Decreasing - As x increases, y values decrease

Constant - As x increases, y values stay the same.

Minimum (min) - Lowest y value (write as a point)

Maximum (max) - Highest y value (write as a point)

x intercept - Where the graph crosses the x axis; where $y = 0$

y intercept - Where the graph crosses the y axis; where $x = 0$.

Continuous

Discrete (Dots)

Discontinuous (There's a break)