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Period 4

MathSet and Randp Readme

MathSet

This class was supposed to implement Set, but I was having trouble figuring out how to do it (the generics confused me, and so did having to redefine a lot of random methods located in the Set interface). Instead, I used an arrayList to store several values. Then, the arrayList is turned into sort of a “ghetto set” when it is run through removeDuplicates(), a method that removes duplicate values from the list. Because of this, this class behaves like a set even though it does not implement it. Further, it meets the requirements of containing union and intersection methods.

Randp

This class finds random numbers from a range of them without returning duplicates. It does this in O(1) time. My original class had an array of numbers that were already used, and would generate random numbers and then cross check them with the array. If the number was already used, the program would create another random number and repeat the process. This took forever, and was definitely not O(1), so I created another version that pre-generated a list of all the possible numbers and randomly pulled from it, deleting elements it pulled. This ended up being much faster.