Announcements

- Reading and RQ 12 for next time
- Assignment 5 due Thursday
- APT 5 due today, APT 6 due March 17

Set Operations from pictures
bit.ly/101S15-0303-01

Question: Which operation does the red represent?

A)  
B)  
C)  
D)  
E)  

Problems — snarf setExample.py

- Given a list of strings that have the name of a course (one word), followed by last names of people in the course:
  - Convert list into lists of strings of names for each course
  - Find total number of people taking any course
  - Find number of people taking just one course

["econ101 Abroms Curtson Williams Smith", "history230 Black Wrigley Smith", ...]
Data for example

[“compsci101 Smith Ye Li Lin Abroms Black”,
“math101 Green Wei Lin Williams DeLong Noell, Ye, Smith”,
“econ101 Abroms Curtson Williams Smith”,
“french1 Wills Wrigley Olson Lee”,
"history230 Black Wrigley Smith” ]
**Part 1 — processList**

Given a list of strings that have the name of a course (one word), followed by last names of people in the course:

- Convert list into lists of strings of names for each course

```
["econ101 Abroms Curtson Williams Smith",
 "history230 Black Wrigley Smith", ...
]
[['Abroms', 'Curtson', 'Williams', 'Smith'], ['Black', 'Wrigley', 'Smith', ...]]
```

**Part 2 — peopleTakingCourses**

Given a list of lists of names, each list represents the people in one course:

- Find total number of people taking any course

**Small Example**

```
[['Abroms', 'Curtson', 'Williams', 'Smith'], ['Black', 'Wrigley', 'Smith']]
```

Answer is 6 unique names

Next, find the number of people taking just one course
Part 3 — unionAllSetsButMe
bit.ly/101S15-0303-04
- Given example, a list of sets of strings, and the index of one of the sets, return the union of all the sets but that one

example = [set(\["a", "b", "c"\]), set(\["b", "c", "d", "g"\]), set(\["e", "d", "a"\])]
unionAllSetsButMe(example, 1) is set(\["a", "b", "c", "e", "d"\])

Part 4 — peopleTakingOnlyOneCourse
bit.ly/101S15-0303-05
- Given a list of lists of strings of names representing people from courses
  - Find number of people taking just one course

[[‘Abroms’, ‘Curtson’, ‘Williams’, ‘Smith’],
4
Example Data for UniqueZoo

["zebra bear fox elephant", "bear crocodile fox", "rhino elephant crocodile kangaroo", "elephant bear"]

UniqueZoo – two zoos have unique animals

APT - UniqueZoo

- How do you solve this problem?
- How is it similar to the problem we just solved