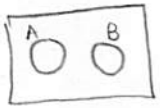
Set Theory

Vocabulary + Notation

- Universal Set - "$\mathcal{U}$"
- Subset

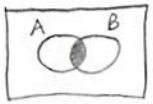
  $B \subset A$

- Empty Set - "$\{\}$ or $\varnothing$"
- Disjoint Sets

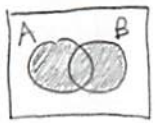


- Complement - "A'"

- Intersection - "$A \cap B$"



- Union - "$A \cup B$"



Solve Problems

- Organize data in Venn diagrams

  <u>or</u>

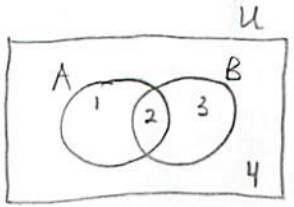
  Data already in Venn diagram
- Two set or Three set problems
- Questions stated using...
  - ↳ Describing Words (and, or, not, only, etc.)
  - ↳ Set Vocabulary (union, intersection, etc.)
  - ↳ Set Notation ($A \cap B$, B', $(A \cup B)'$, etc)

Key Words

↳ and = intersection = $A \cap B$

↳ or = union = $A \cup B$

↳ not = complement = A'



Description	Vocabulary	Notation	Region #'s
Everything	Universal Set	$\mathcal{U}$	1,2,3,4
Not A	Complement of A	A'	3,4
A and B	A intersect B	$A \cap B$	2
A or B	A union B	$A \cup B$	1,2,3
Only A	———	$A \cap B'$	1
Neither A or B	Complement of A union B	$(A \cup B)'$	4