

Set Theory - Engaging Resources

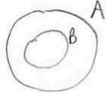




LR SO2 - Set Theory Concept Summary Sheet

(Download: [Set Theory Concept Map.pdf](#))

This chart may help students see the big picture and the connections within the topic.

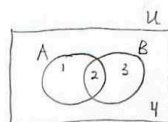
Set Theory

Vocabulary + Notation

- Universal Set - " U "
- Subset
 $B \subset A$ 
- Empty Set - " $\{\}$ or \emptyset "
- Disjoint Sets 
- Complement - " A' " 
- Intersection - " $A \cap B$ " 
- Union - " $A \cup B$ " 

Solve Problems

- Organize data in Venn diagrams
or
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.)



Description	Vocabulary	Notation	Region #s
Everything	Universal Set	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

Key Words

- ↳ and = intersection = $A \cap B$
- ↳ or = union = $A \cup B$
- ↳ not = complement = A'

LR SO2 - Class Statistics

(Download: [Set Theory Asgn - Class Statistics.docx](#))

The main idea behind this assignment is to generate interesting and relevant data by surveying the class and then solve problems related to the data.

Data may be collected by

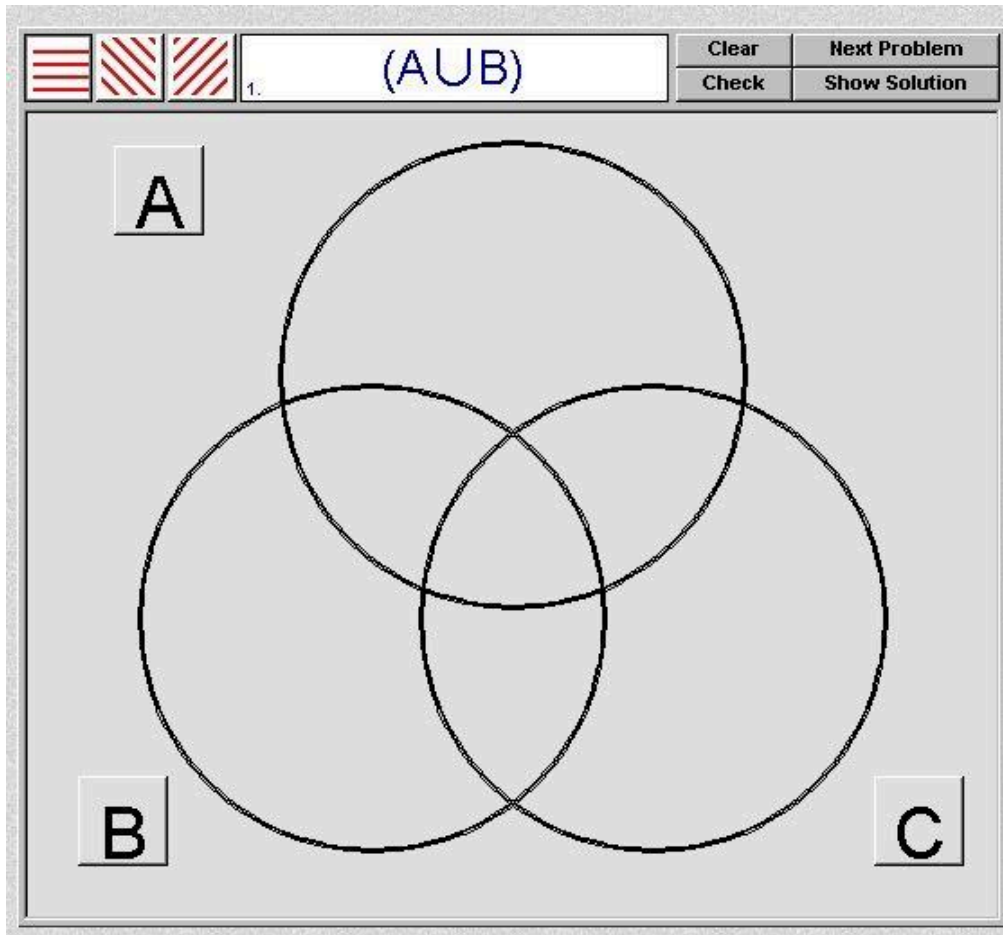
- survey and tally
- using rope circles or sidewalk chalk circles and getting students to physically stand in the set they belong to.



LR SO2 - Virtual 3-set Venn Diagram Manipulative

(Link: [Venn Diagrams NLVM](#))

This is a nice tool to practice set notation and shading corresponding areas of the venn diagram.

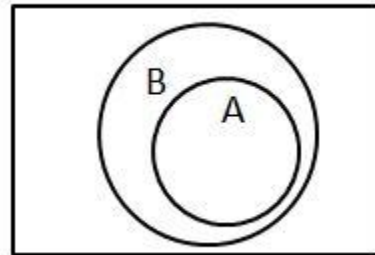


LR SO2 - Set Notation Matching Activity

(Download: [Set Notation Matching.docx](#))

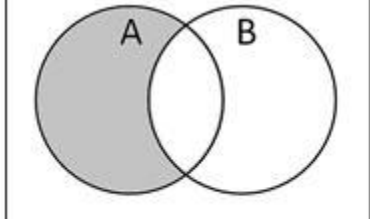
Students may work together to match various cards with Set Notation, Venn Diagrams and written descriptions.

$$A \subset B$$



A is the
subset of B

$$A \cap B'$$



A and the
complement of
B