Try it! (setup)

Let $A = \{1,2,3,4,5\}$

$B = \{1,2,5\}$

Is $A \subseteq A$?

Is $B \subseteq A$?

Is $A \subseteq B$?

Is $\{1\} \in A$?

Is $1 \in A$?

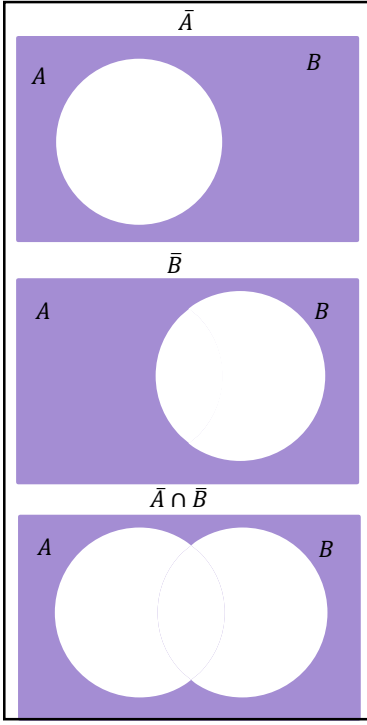
A proof!

What's the analogue of DeMorgan's Laws…

$\bar{A} \cap \bar{B} = \overline{A \cup B}$ $A = B \equiv \forall x(x \in A \leftrightarrow x \in B) \equiv A \subseteq B \wedge B \subseteq A$

$\bar{A} \cap \bar{B} \subseteq \overline{A \cup B}$

$\overline{A \cup B} \subseteq \bar{A} \cap \bar{B}$



Try to find the diagram for $\overline{A \cup B}$

Is it the same?

Build some sets! (setup)

Let $A = \{x: x\%3 = 0\}$

What are the elements of A?

Let $B = \{s: s \text{ is a string that contains at least one 'a' and at least one 'b'}\}$

What are the elements of B?