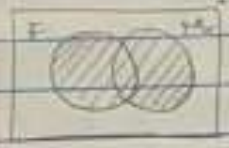
* Union :-

∴ F ∪ M = {Jane, Mary, Susan, Dana, Bob, Joe, Max}
↑ union

* Union → combines all elements in both sets, but no repetations are done.
→ one sort of "ADDITION" but not "ADDITION".



** "AND" / "OR" → non-exclusive or

Ex: {Dana} ∪ {Dana} = {Dana}

Dana ∈ (M ∪ F) → TRUE

$N_0 := N \cup \{0\} = \{0, 1, 2, \ldots\}$
↑ all natural number set

* Intersection :-

∴ F ∩ M = {Dana}
↑ intersection

intersection set → "AND"
common part is taken.