

II. Review discussion of **Venn** algebras with $2^1, 2^3, 2^5, \dots$. Can you find any way to modify the LAs to come up with corresponding algebras with equivalent classes of formulas?

These would be algebras where assignment of truth values is constrained (i.e. not arbitrary). Consider the one isomorphic to **Venn2**, for starters. This is the algebra on the set of diagrams representing the case where the one set coincides with the universal set; in LA terms, this is the case when there is a unique formula and that formula (or the set of models in which it is true) coincides with the truth (all the models).

Consider next **Venn8**. This is the algebra on the set of diagrams which represent a case with two completely disjoint sets. In LA terms, this is the case where there are two formulas which can never be simultaneously true, each of which stand for completely disjoint sets of models.¹

(Similarly for the others...)

¹ Illustrating from the truth table above: it is as if we were to leave out the top row from that table.