

Intro to Proofs

Venn diagrams with 4 sets

It is not that easy to use Venn diagrams with 4 sets or more. Your challenge is to find a way to display all the unions and intersections of 4 sets in two dimensions.

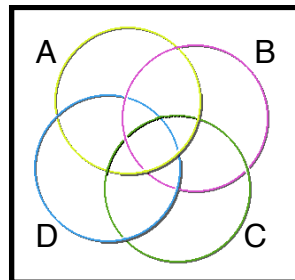
Think for a while.

- *If you are stuck, have a look at the “scaffolding questions” on the back side of this page.*
- *If you solve this problem look at the extension*

Scaffolding questions

How many regions would there be in total on the Venn diagram for 4 regions?

Why does this representation not work? Which regions are missing?



Extensions

How about with 5 sets?? Could we find a way (as twisted as it may be) for any number of sets?

Alternatively, you can also go online to research ways to display 4 sets that are different from your solutions, or to research the question of 5 or more sets...