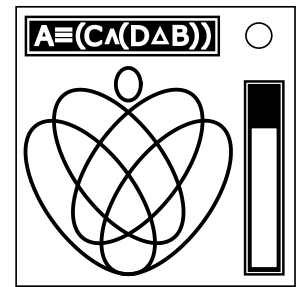
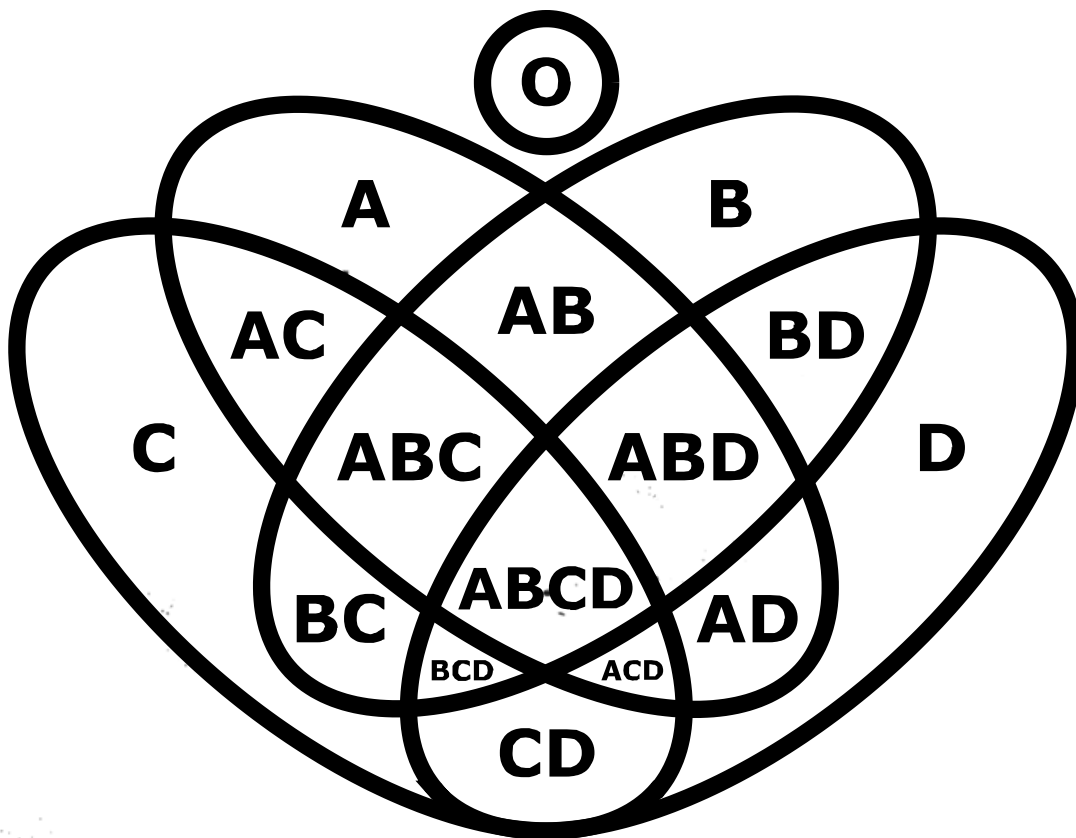


## On the Subject of Fast Boolean Venn Diagrams

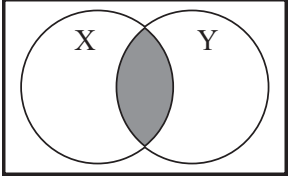
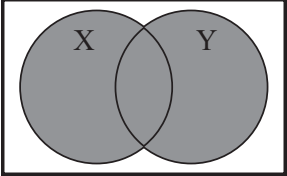
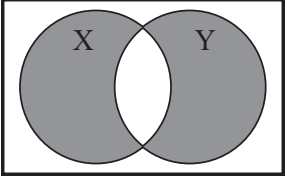
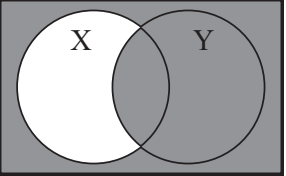
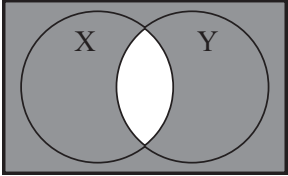
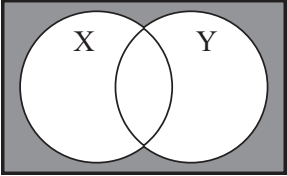
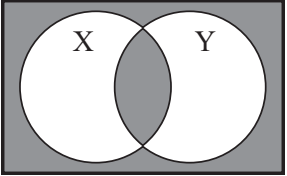
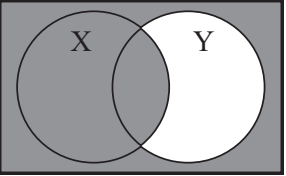
Why is there a Venn diagram? Why am I being timed? *Ó/! "h/\_ - - "n - - "Ö~". -*



- This module has sixteen buttons, one for each area of a 4-way Venn diagram identical to the one shown below. Selecting any one of them toggles its submission state.
- Once the timer starts, a boolean logic expression will be displayed above the Venn diagram.  
A response will be submitted after 90 seconds have passed.
- For each area, substitute its truth values into the expression and add it to the submission if it outputs true.
  - Letters that appear in a given area input true into expression. Letters that do not input false.
  - Operations inside of brackets are evaluated before operations outside of them.  
Otherwise, operations are evaluated from left to right.
- If all areas that give true outputs are submitted once time runs out, the module will solve, otherwise a strike will be incurred and a new expression generated.



The following images describe the operators that may appear in the expression, the grey areas output true:

$X \wedge Y$ AND	$X \vee Y$ OR	$X \triangle Y$ XOR	$X \mapsto Y$ IMP
			
$X \mid Y$ NAND	$X \downarrow Y$ NOR	$X \equiv Y$ XNOR	$X \leftarrow Y$ IMPBY
			

## Assessment Completed

4 error(s) detected.

- **Activation:** - Timer begins before bomb activation. (Startflag)
- **Display:** - Characters are displayed with the wrong symbols. (Express)  
- Venn diagram displays correct submission when an incorrect submission is given. (SolValidator)
- **Striking Mechanism:** - Fails to trigger upon missing an area that outputs true. (SolValidator)

## Final Result

FATAL ERROR. Do NOT push to production.