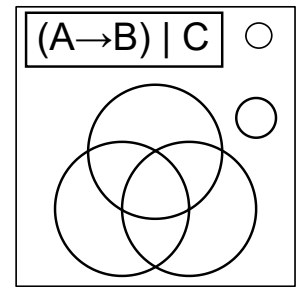


## On the Subject of Boolean Venn Diagrams

*Why is there a big Venn diagram? Why are there some weird symbols? Oh no...*

- This module has eight buttons, one for each enclosed section of the Venn diagram and one representing the area not enclosed in any section of the diagram.
- The three circles are referred to as "A" (top), "B" (bottom left), and "C" (bottom right).
- For each section, use the boolean logic expression displayed above the Venn diagram to determine if that section is "true" or "false" by using the following rules:
  - If the section is enclosed in a circle, then the value for that variable is considered to be "true". Otherwise, it is "false".
  - Example: The middle section is enclosed in all three circles, so "A", "B", and "C" should all be considered to be "true" while evaluating that section.*
  - Evaluate the operator inside the parentheses before the one outside of the parentheses.
  - Images describing each operator can be found below (gray regions represent "true").
  - If the section evaluates to "true", press the button that corresponds with it. The section will turn green.
- Solve the module by pressing the buttons corresponding to all of the "true" sections.
- Note: if an incorrect button is pressed, a strike will be issued and the section will turn red.



$X \wedge Y$ AND	$X \vee Y$ OR	$X \underline{\vee} Y$ XOR	$X \rightarrow Y$ IMPLIES
$X \mid Y$ NAND	$X \downarrow Y$ NOR	$X \leftrightarrow Y$ XNOR	$X \leftarrow Y$ IMPLIED BY