

Click on the “Help” for logical operator typing shortcuts.

How to use:

1. Click on the “Add Statement” button to generate a blank text field to enter a logical statement. Atomics can be any combination of upper and lowercase characters not separated by a space, parentheses, or operators. Invalid statements such as those that use mismatched parentheses, adjacent binary operators, etc. will prevent the solver from running. Use the following shortcuts to enter logical operators:
 - a. $!$ or \sim = \neg
 - b. $\&$ = \wedge
 - c. $|$ = \vee
 - d. $\$$ = \rightarrow
 - e. $\%$ = \leftrightarrow
2. After entering in your set of statements, click on either the “Do DP!” or “Do DP! (CNF)” buttons. The former will evaluate the set of premises for consistency using the original statement syntax. A tree graphic will be generated to show the steps of the Davis-Putnam solving procedure. If at least one branch terminates with “True”, then the statements are consistent. The latter button first converts the input statements into Conjunctive Normal Form. These statements are then converted into clauses. Again, a tree graphic will be generated to show the steps of the Davis-Putnam procedure, only using clauses instead of actual statements. This feature also includes elimination strategies such as Tautology Elimination, Subsumption Elimination, and Pure Literal Elimination.
3. After viewing the results, click on the “Clear All” button to delete the tree graphic and text fields. Click on the “Add Statement” button again to enter in a new set of statements.