

Rules for Constructing a Truth Table

1. the truth table must include:
 - a column for each variable in the argument
 - a column for each premise and the conclusion
2. the variables must be listed in alphabetical order
3. moving from left to right, you should order the columns as follows:
 - variables
 - premises
 - conclusion
4. if you don't follow the order listed above, or if you add additional information to your truth table, you must identify which columns contain premises and which column contains the conclusion
5. an argument with two variables, should have four lines; an argument with three variables should have eight lines; an argument with four variables should have sixteen lines (the number of lines required is 2^n where n is the number of variables)

Example:

$p \rightarrow \sim q$
 q

 $\sim p \cdot q$

p	q	$p \rightarrow \sim q$	q	$\sim p \cdot q$
T	T	F	T	F
T	F	T	F	F
F	T	T	T	T
F	F	T	F	F

Valid, because all true premises never lead to a false conclusion