1.

1.	$(R \vee S) \supset (T \cdot U)$	
2.	$\sim R \supset (V \supset \sim V)$	
3.	$\sim T \quad / \therefore \sim V$	
4.	$\sim T \vee \sim U$	3. Add.
5.	$\sim (T \cdot U)$	4 De.M.
6.	$\sim (R \vee S)$	1, 5 M.T.
7.	$\sim R \cdot \sim S$	6. De.M.
8.	$\sim R$	7 Simp.
9.	$V \supset \sim V$	2, 8. M.P.
10	$\sim V \vee \sim V$	9 Imp.
11.	$\sim V$	10. Taut.

Not being able to construct a formal proof of its validity does not prove an argument to invalid. What does constitute a ~~proof~~ proof that a given argument is invalid?

The method about to be described is closely related to the truth-table method, although it is a great deal ~~shorter~~ shorter. It will be helpful to recall how an invalid argument form is ~~pro~~ proved invalid by a truth table.

If we can somehow make an assignment of truth values to the simple simple component statements of an argument that will make its premises true and its conclusion false then making that assignment will suffice to prove the argument invalid.

consider this argument

$$F \supset R$$
$$S \supset R$$
$$\therefore F \supset S$$

We can prove it invalid without having to construct a complete truth table.

This method of proving invalidity is an alternative to the ~~total~~ truth table method of proof.

F	R	S	$F \supset R$	$S \supset R$	$F \supset S$
T	T	F	T	T	F

1. $A \supset B$
$C \supset D$
$A \vee D$
$\therefore B \vee C$

2. $I \vee \sim J$
$\sim(\sim K \cdot L)$
$\sim(\sim I \cdot \sim L)$
$\therefore \sim J \supset K$

3.