

∴ U ∧ W

✓ 43. 1) $p \rightarrow q$	premise
2) $r \vee s$	premise
3) $\sim s \rightarrow \sim t$	premise
4) $\sim q \vee t$	premise
5) $\sim s$	premise
6) $\sim p \wedge r \rightarrow u$	premise
7) $w \vee t$	premise
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8) $\sim t$	(3)(5) Modus Ponens
9) $r$	(2)(5) Disjunctive Syllogism
10) $\sim q$	(4)(5) Disjunctive Syllogism
11) $\sim p$	(10)(1) Modus tollens
12) $\sim p \wedge r$	(9)(11) conjunctive addition
13) $u$	(12)(6) Modus Ponens
14) $w$	(7)(8) Disjunctive syllogism
∴ $U \wedge W$	(3)(14) conjunctive addition.

This problem took me some time I wasn't really sure where to start, so I began by looking for something that I recognized I tried to make it in a logical order, I think I could probably move some things around to make more sense, but I wanted to show exactly how I went about this. After step 10 it really started clicking what I was supposed to look for and from there it was much simpler.