

Step: 13: From step 1 to 12, <sup>using</sup> Conditional elimination ( $\rightarrow E$ ), we have R

"R" based premises find out.

### \* Rules for Deduction:

- i) Assumption Introduction (AI)
- ii) Assumption Existence (AE)
- iii) Conjunction Introduction ( $\wedge I$ )
- iv) Conjunction Existence ( $\wedge E$ )
- v) Disjunctive Introduction ( $\vee I$ )
- vi) Disjunctive Existence ( $\vee E$ )
- vii) Conditional Introduction ( $\rightarrow I$ )
- viii) Conditional Existence ( $\rightarrow E$ )