

$P \vee Q$

$\neg Q \vee \neg T \vee R$

$\neg Q \vee R \vee S$

$\vdash P' \vee (Q')$

$$\stackrel{*}{=} \left(\neg P \wedge Q \wedge \neg R \wedge S \wedge \neg T \wedge \neg S \vee T \right), N, \emptyset, 2, \neg Q \vee \neg T \vee R$$

$$\stackrel{R_2}{=} \left(\neg P \wedge Q \wedge \neg R \wedge S \wedge \neg R \vee S \right), N, \emptyset, 2, \neg Q \vee \neg S \vee R$$

$$\stackrel{R_2}{=} \left(\neg P \wedge Q \wedge \neg R \wedge S \right), N, \emptyset, 2, \neg Q \vee R$$

$$\stackrel{R_2}{=} \left(\neg P \wedge Q \wedge R \wedge \neg Q \vee R \right), N, \{ \neg Q \vee R \}, 1, T$$

By contradiction

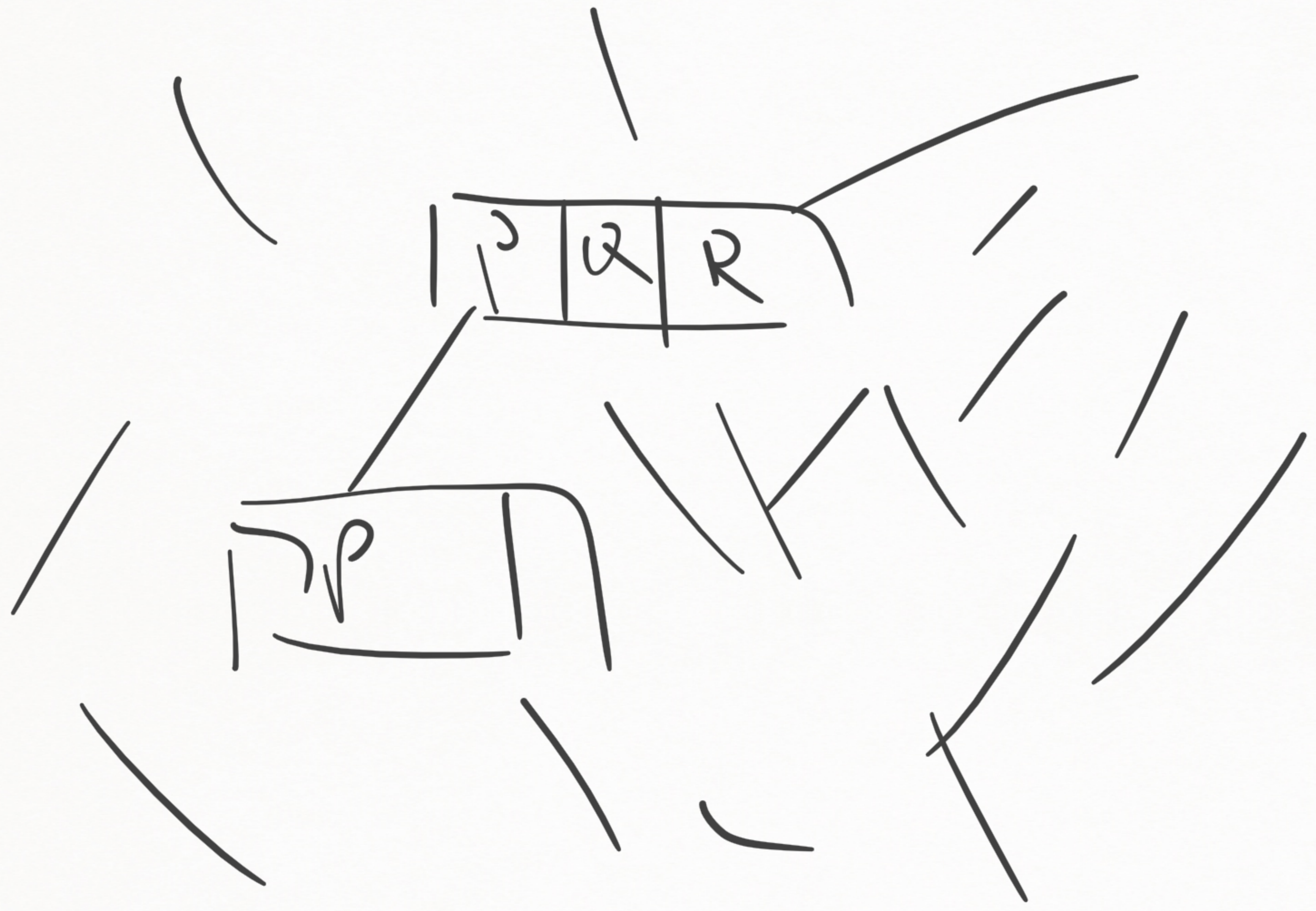
$(M, W, U, k, D \vee L) \Rightarrow$ Base case

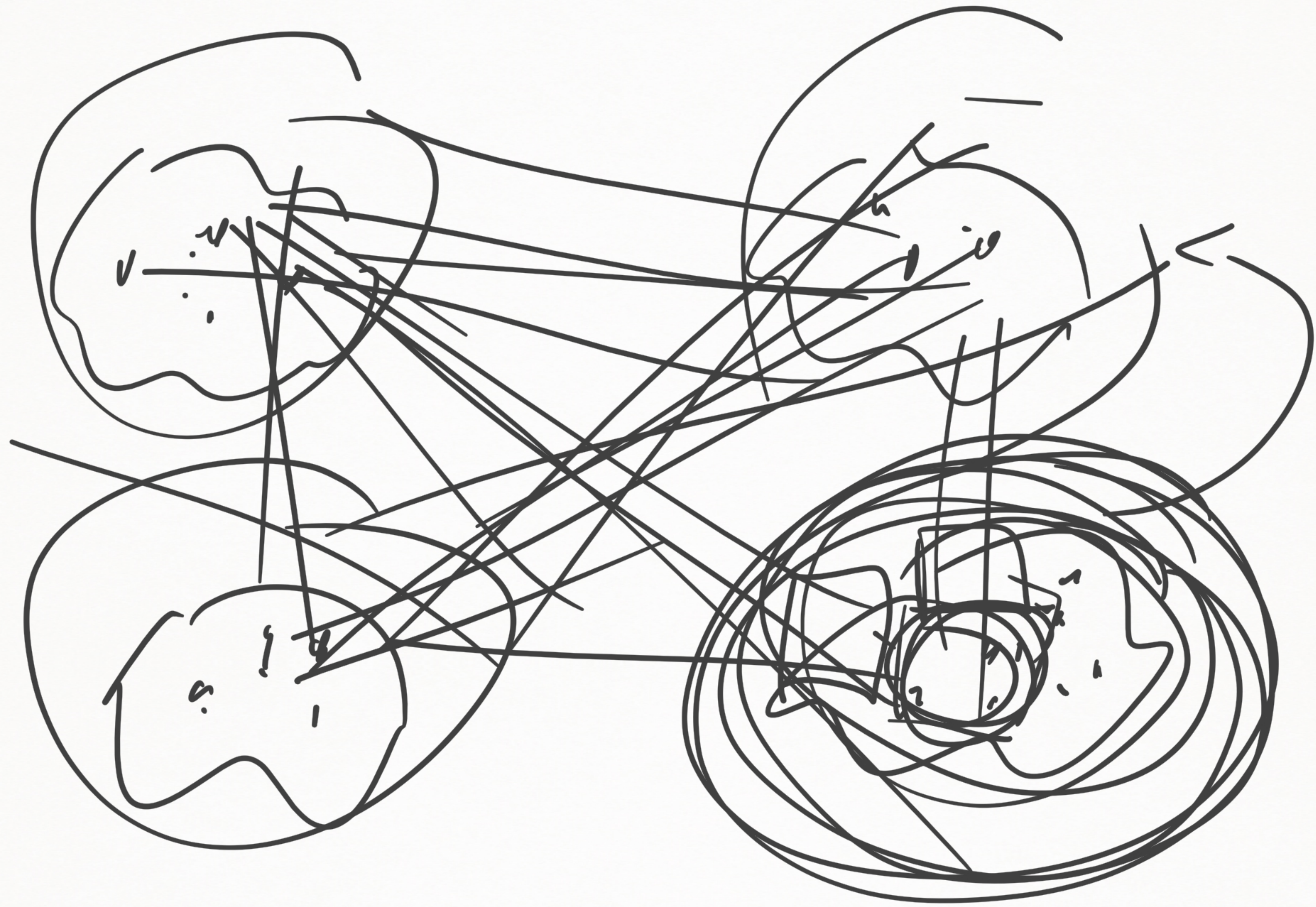
$(M, k_1 \wedge \dots \wedge M_i k_i k_i \wedge \dots \wedge k_n; W, U, k, D \vee L)$

$k_j, j > 1$ don't occur in D

One of the k_j 's complement of L

$D \vee L$ is false in M





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, (P ∨ Q ∨ R)

, (P ∨ Q)

$$\begin{array}{l} \hat{T} \cup Q \\ \cup \\ \hat{P} \cup R \end{array} \supseteq Q \cup R$$

$$\begin{array}{l} S \cup Q \\ \cup \\ \hat{S} \cup \hat{P} \end{array} \supseteq Q \cup R$$