

Grammar of propositional logic. By "rewrite" rules.

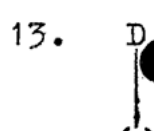
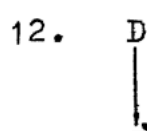
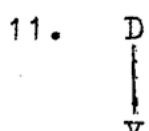
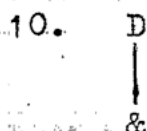
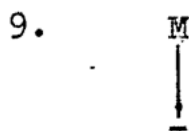
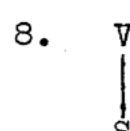
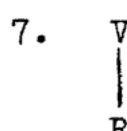
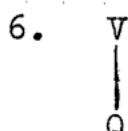
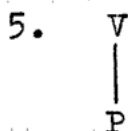
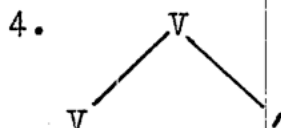
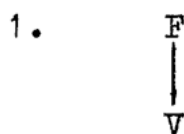
Terminal symbols:  $P Q R S - \& \vee \rightarrow \leftrightarrow ' .$

Other syntactic categories:

Monadic connectives	M
Dyadic connectives	D
Variables	V
Formulas	F.

Initial tree:  $F$

Rewrite rules (all optional):



A construction tree is produced by starting with the initial tree and repeatedly applying the optional rewrite rules to nodes until all terminal (lowest) nodes of the tree are occupied by terminal symbols.

To obtain a linear representation of the formula constructed, copy the terminal nodes from left to right, inserting parentheses around each subformula with a dyadic main connective.

Thus to construct the formula ' $\neg P$ ', for instance, proceed:

