

Dednat6: a demo for underbrace2d.lua

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Output:

$$\begin{array}{c}
 \underbrace{\underbrace{\underbrace{(\neg \neg P)}_{10}}_{02}}_{20} \rightarrow \underbrace{P}_{10} \qquad \underbrace{\underbrace{\underbrace{\neg(P \wedge Q)}_{10 \ 01}}_{00}}_{32} \rightarrow \underbrace{\underbrace{\underbrace{\neg P}_{10}}_{02}}_{22} \vee \underbrace{\underbrace{\underbrace{\neg Q}_{01}}_{20}}_{22} \\
 \\
 T(\underbrace{\underbrace{\underbrace{\neg(P \wedge Q)}_{\Box P \ \Box Q}}_{\Box P \wedge \Box Q}}_{\Box \neg(\Box P \wedge \Box Q)}) \rightarrow \underbrace{\underbrace{\underbrace{\neg(P \vee \neg Q)}_{\Box P \ \Box Q}}_{\Box \neg \Box P \ \Box \neg \Box Q}}_{\Box \neg \Box P \vee \Box \neg \Box Q} \\
 \underbrace{\underbrace{\underbrace{\Box \neg(\Box P \wedge \Box Q)}_{\Box((\Box \neg(\Box P \wedge \Box Q)) \rightarrow (\Box \neg \Box P \vee \Box \neg \Box Q))}}_{\Box \neg \Box P \vee \Box \neg \Box Q}}_{\Box((\Box \neg(\Box P \wedge \Box Q)) \rightarrow (\Box \neg \Box P \vee \Box \neg \Box Q))}
 \end{array}$$

Source (for the upper right diagram):

```

%UB  ¬(P  ∧ Q) → (¬ P  ∨ ¬ Q)
%UB  --  --      --      --
%UB  10 01      10      01
%UB  ----
%UB    00      02      20
%UB  -----
%UB    32      22
%UB  -----
%UB              22
%L
%L  defub "demorgan"
%
$$\pu
   \ub{demorgan}
$$

```