

Trivial proofs

Copyright © 2018 by Colin James III All rights reserved.
Author email: info@ersatz-systems dot com

We assume the method and apparatus of Meth8/VL4 with τ as the designated *proof* value, F as contradiction, N as truthity (non-contingency), and C as falsity (contingency). Results are a 16-valued truth table in row-major and horizontal, or repeating fragments of 128-tables for more variables.

LET: + Or; > Imply; = Equivalent; # necessity, for all or every; % possibility, for one or some.

For all p, $p+p=p$. (1.1)

$p>((p+p)=p)$; TTTT TTTT TTTT TTTT (1.2)

For one p, $p+p=p$. (2.1)

% $p>((p+p)=p)$; TTTT TTTT TTTT TTTT (2.2)

Axiom of associativity (3.1)

$((p+q)+r)=(p+(q+r))$; TTTT TTTT TTTT TTTT (3.2)

Remark: As expected, replacing the Or connective with the And connective produces the same results.