TheoryMine

CERTIFICATE OF REGISTRY

Broucher's Seconf Theorem

Let

$$\begin{aligned} T_2 &= C_d(T_2, \mathsf{Bool}) | C_c(\mathbb{N}, \mathbb{N}) \\ T_9 &= C_r(\mathbb{N}) | C_q(T_9, \mathbb{N}) \end{aligned}$$

$$f_{\zeta\psi} : T_2 \times T_9 \to T_2$$

$$\begin{aligned} f_{\zeta\psi}(C_c(x, y), z) &= C_c(x, x) \\ f_{\zeta\psi}(C_d(x, y), z) &= C_d(f_{\zeta\psi}(x, z), y) \end{aligned}$$

then

$$f_{\zeta\psi}(f_{\zeta\psi}(f_{\zeta\psi}(x, y), z), y) = f_{\zeta\psi}(x, z)$$

Proof outline: induction and rippling

THIS THEOREM HAS BEEN NAMED AND RECORDED IN THE THEORYMINE DATABASE

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