Theory Mine

CERTIFICATE OF REGISTRY

Ali's Theorem:

Let

$$T_1 = C_a(T_1, \mathbb{N}) \mid C_b(\mathbb{N}, \mathbb{N})$$

$$\begin{split} f_{\mu} &: T_1 \times T_1 \rightarrow T_1 \\ f_{\mu}(C_a(x, y), z) &= C_b(C_b(C_a(x, x), y), x) \\ f_{\mu}(C_b(x, y), z) &= f_{\mu}(x, z) \end{split}$$

then

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

Proof outline: induction on x



THIS THEOREM HAS BEEN NAMED AND RECORDED IN THE THEORYMINE DATABASE