Theory Mine

CERTIFICATE OF REGISTRY

Quentin's Theorem:

Let

 $T = C_a(bool, bool) \mid C_b(T)$

$$\begin{split} f_{\alpha}: T \times T \to T \\ f_{\alpha}(C_{a}(x,y),z) &= z \\ f_{\alpha}(C_{b}(x),y) &= C_{b} (f_{\alpha}(x,y)) \end{split}$$

then

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

Proof outline: induction on y



THIS THEOREM HAS BEEN NAMED AND RECORDED IN THE THEORYMINE DATABASE