## Theory Mine

CERTIFICATE OF REGISTRY

## broucher theorem

Let

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

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

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

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