

# ***TheoryMine***

CERTIFICATE OF REGISTRY

## **Cell Fusion Theorem:**

Let

$$T_5 = C_j(T_5, \mathbb{N}) \mid C_i(\text{Bool}, \text{Bool})$$

$$T_{13} = C_x(\mathbb{N}) \mid C_w(T_{13}, \text{Bool})$$

$$f_{\eta\kappa} : T_5 \times T_{13} \rightarrow T_5$$

$$f_{\eta\kappa}(C_i(x, y), z) = C_i(x, x)$$

$$f_{\eta\kappa}(C_j(x, y), z) = C_j(f_{\eta\kappa}(x, z), y)$$

then

$$f_{\eta\kappa}(f_{\eta\kappa}(x, y), y) = f_{\eta\kappa}(x, y)$$

Proof outline: induction and rippling



THIS THEOREM HAS BEEN NAMED AND RECORDED  
IN THE THEORYMINE DATABASE

11 Jan 2011

[www.theorymine.co.uk](http://www.theorymine.co.uk)