

t91_funct_4

(TMV9sWf4RFwVHCkAbnJBvnwmMLXdD4XCXBu)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. \forall X2. \\ \forall X3.(X1 \neq X3) \Rightarrow (k1_funct_1 (k1_funct_4 X0 (k16_funcop_1 \\ X1 X2)) X3 = k1_funct_1 X0 X3)) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1.(v1_relat_1 (k16_funcop_1 X0 X1)) \wedge (v1_funct_1 \\ (k16_funcop_1 X0 X1)) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1.(((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \wedge ((\\ v1_relat_1 X1) \wedge (v1_funct_1 X1))) \Rightarrow ((v1_relat_1 (k1_funct_4 X0 \\ X1)) \wedge (v1_funct_1 (k1_funct_4 X0 X1))) \end{aligned} \quad (3)$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. \forall X2. \\ \forall X3. \forall X4. \forall X5. \neg (X5 \neq X4) \wedge ((X5 \neq X1) \wedge (k1_funct_1 \\ (k1_funct_4 (k1_funct_4 X0 (k16_funcop_1 X1 X2)) (k16_funcop_1 \\ X4 X3)) X5 \neq k1_funct_1 X0 X5))) \end{aligned}$$