

t92_funct_7

(TMNM8cptvPfbz2Fuv3LYkeGHWJLLBE m M2FV)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_funct_7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.((\\ v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2.((k9_xtuple_0 X0 = \\ k9_xtuple_0 X1) \wedge (\forall X3.(X3 \in X2) \Rightarrow (k1_funct_1 X0 X3 = k1_funct_1 \\ X1 X3))) \Rightarrow (k5_relat_1 X0 X2 = k5_relat_1 X1 X2))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. \forall X2. \\ \forall X3.(X2 \neq X3) \Rightarrow (k1_funct_1 (k2_funct_7 X0 X2 X1) X3 = k1_funct_1 \\ X0 X3)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. \forall X2. \\ k9_xtuple_0 (k2_funct_7 X0 X2 X1) = k9_xtuple_0 X0) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2.((v1_relat_1 X0) \wedge (v1_funct_1 \\ X0)) \Rightarrow ((v1_relat_1 (k2_funct_7 X0 X1 X2)) \wedge (v1_funct_1 (k2_funct_7 \\ X0 X1 X2))) \end{aligned} \quad (4)$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. \forall X2. \\ \forall X3.(X1 \in X3) \vee (k5_relat_1 (k2_funct_7 X0 X1 X2) X3 = k5_relat_1 \\ X0 X3)) \end{aligned}$$