

t12_funct_6

(TMPiaFTGuGqUfnsFVVyac3nS1hEikD3Vqc7)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_5 : \iota \Rightarrow \iota$ be given. Let $k1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_funct_5 : \iota \Rightarrow \iota$ be given. Let $k2_funct_5 : \iota \Rightarrow \iota$ be given. Let $k4_funct_5 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1_relat_1 X2) \wedge (v1_funct_1 \\ & X2)) \Rightarrow ((r1_tarski (k9_xtuple_0 X2) (k2_zfmisc_1 X0 X1)) \Rightarrow ((k2_funct_5 \\ & (k1_funct_5 X2) = X2) \wedge (k4_funct_5 (k3_funct_5 X2) = X2))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((v1_relat_1 X3) \wedge \\ & (v1_funct_1 X3)) \Rightarrow ((X3 \in k1_funct_2 X0 (k1_funct_2 X1 X2)) \Rightarrow ((k2_funct_5 \\ & X3 \in k1_funct_2 (k2_zfmisc_1 X0 X1) X2) \wedge (k4_funct_5 X3 \in k1_funct_2 \\ & (k2_zfmisc_1 X1 X0) X2))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow ((v1_relat_1 (k3_funct_5 X0)) \wedge (v1_funct_1 (k3_funct_5 X0))) \quad (3)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow ((v1_relat_1 (k1_funct_5 X0)) \wedge (v1_funct_1 (k1_funct_5 X0))) \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \\ & ((v1_relat_1 X5) \wedge (v1_funct_1 X5)) \Rightarrow ((r1_tarski (k9_xtuple_0 \\ & X5) (k2_zfmisc_1 X3 X4)) \Rightarrow (((\neg k1_funct_5 X5 \in k1_funct_2 X0 (k1_funct_2 \\ & X1 X2)) \wedge (\neg k3_funct_5 X5 \in k1_funct_2 X1 (k1_funct_2 X0 X2))) \vee (X5 \in \\ & k1_funct_2 (k2_zfmisc_1 X0 X1) X2))) \end{aligned}$$