

t86_funct_4
(TMHMzt7ZcMfG3aU1WYvUfsfy1ey6ad2uqot)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1_relat_1 X2) \wedge (v1_funct_1 \\ & X2)) \Rightarrow (((X0 \in k9_xtuple_0 X2) \wedge (k1_funct_1 X2 X0 = X1)) \Rightarrow (r1_tarski \\ & (k16_funcop_1 X0 X1) X2)) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (X0 \neq X2) \Rightarrow (k4_funct_4 \\ & X0 X2 X1 X3 = k2_tarski (k4_tarski X0 X1) (k4_tarski X2 X3)) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (r1_tarski (k2_tarski X0 X1) \\ & X2) \Leftrightarrow ((X0 \in X2) \wedge (X1 \in X2)) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1_relat_1 X2) \wedge (v1_funct_1 \\ & X2)) \Rightarrow ((k4_tarski X0 X1 \in X2) \Leftrightarrow ((X0 \in k9_xtuple_0 X2) \wedge (X1 = k1_funct_1 \\ & X2 X0))) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \wedge ((\\ & v1_relat_1 X1) \wedge (v1_funct_1 X1))) \Rightarrow (k1_funct_4 X0 X0 = X0) \end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(v1_relat_1 (k16_funcop_1 X0 X1))\wedge(v1_funct_1 (k16_funcop_1 X0 X1)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(v1_funct_1 (k7_funcop_1 X0 X1))\wedge((v1_funct_2 (k7_funcop_1 X0 X1) X0 (k1_tarSKI X1))\wedge(m1_subset_1 (k7_funcop_1 X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 X0 (k1_tarSKI X1)))))) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.k16_funcop_1 X0 X1 = k7_funcop_1 (k1_tarSKI X0) X1 \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.k4_funct_4 X0 X1 X2 X3 = k1_funct_4 (k16_funcop_1 X0 X2) (k16_funcop_1 X1 X3) \quad (9)$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((v1_relat_1 X4)\wedge(v1_funct_1 X4))\Rightarrow(((X0 \in k9_xtuple_0 X4)\wedge((X2 \in k9_xtuple_0 X4)\wedge((k1_funct_1 X4 X0 = X1)\wedge(k1_funct_1 X4 X2 = X3)))))\Rightarrow(r1_tarSKI (k4_funct_4 X0 X2 X1 X3) X4)$$