

174_finseq_2 (TMUNvAP- TxLxc7s15DBBLgPQ2hpeykCv3PBy)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k4_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k13_funct_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (r1_tarski\ X0\ X1) \Rightarrow ((r1_tarski \\ (k2_zfmisc_1\ X0\ X2)\ (k2_zfmisc_1\ X1\ X2)) \wedge (r1_tarski\ (k2_zfmisc_1 \\ X2\ X0)\ (k2_zfmisc_1\ X2\ X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0. ((v1_relat_1\ X0) \wedge (v1_funct_1\ X0)) \Rightarrow (\forall X1. ((\\ v1_relat_1\ X1) \wedge (v1_funct_1\ X1)) \Rightarrow (r1_tarski\ (k10_xtuple_0\ (k13_funct_3 \\ X0\ X1))\ (k2_zfmisc_1\ (k10_xtuple_0\ X0)\ (k10_xtuple_0\ X1)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((v1_relat_1\ X1) \wedge (v1_funct_1\ X1)) \Rightarrow (\forall X2. \\ ((v1_relat_1\ X2) \wedge (v1_funct_1\ X2)) \Rightarrow (((k9_xtuple_0\ X1 = X0) \wedge (k9_xtuple_0 \\ X2 = X0)) \Rightarrow (k9_xtuple_0\ (k13_funct_3\ X1\ X2) = X0))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} \forall X0. (v1_relat_1\ X0) \Rightarrow (\forall X1. (v1_relat_1\ X1) \Rightarrow ((r1_tarski \\ (k10_xtuple_0\ X0)\ (k9_xtuple_0\ X1)) \Rightarrow (k9_xtuple_0\ (k3_relat_1 \\ X0\ X1) = k9_xtuple_0\ X0))) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. ((r1_tarski\ X0\ X1) \wedge (r1_tarski \\ X1\ X2)) \Rightarrow (r1_tarski\ X0\ X2) \end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(k9_xtuple_0 (k2_funcop_1 X0 X1) = X0) \wedge (r1_tarski (k10_xtuple_0 (k2_funcop_1 X0 X1)) (k1_tarski X1)) \quad (6)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow (k4_finseq_1 X0 = k9_xtuple_0 X0) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.v1_relat_1 (k2_zfmisc_1 X0 X1) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(v1_relat_1 (k2_funcop_1 X0 X1)) \wedge (v1_funct_1 (k2_funcop_1 X0 X1)) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \wedge ((v1_relat_1 X1) \wedge (v1_funct_1 X1))) \Rightarrow ((v1_relat_1 (k13_funct_3 X0 X1)) \wedge (v1_funct_1 (k13_funct_3 X0 X1))) \quad (10)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2.k4_funcop_1 X0 X1 X2 = k3_relat_1 (k13_funct_3 X1 (k2_funcop_1 (k9_xtuple_0 X1) X2)) X0)) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.k2_funcop_1 X0 X1 = k2_zfmisc_1 X0 (k1_tarski X1) \quad (12)$$

Theorem 1

$$\forall X0.\forall X1.((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \Rightarrow (\forall X2.((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \Rightarrow ((r1_tarski (k2_zfmisc_1 (k10_xtuple_0 X1) (k1_tarski X0)) (k9_xtuple_0 X2)) \Rightarrow (k9_xtuple_0 (k4_funcop_1 X2 X1 X0) = k4_finseq_1 X1)))$$