

l21_fomodel0 (TMXh-
wAwv1T6dp7BpMTx2ppNwScAZ8mrZ8Hd)

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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 $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k13_funct_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k3_xxreal_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k9_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.(v7_ordinal1\ X1) \Rightarrow (\forall X2. \\ & (v7_ordinal1\ X2) \Rightarrow ((X0 = k3_xxreal_0\ X1\ X2) \Rightarrow (k9_subset_1\ k5_numbers \\ & (k2_finseq_1\ X1)\ (k2_finseq_1\ X2) = k2_finseq_1\ X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v1_xboole_0\ X0) \wedge ((\neg v1_xboole_0\ X1) \wedge \\ & (m1_subset_1\ X1\ (k1_zfmisc_1\ X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ & X2\ X0\ X1) \Leftrightarrow (m1_subset_1\ X2\ X1)) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ X0)) \Rightarrow (k9_subset_1\ X0\ X1\ X2 = k3_xboole_0\ X1\ X2) \quad (3)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (4)$$

Assume the following.

$$(\neg v1_xboole_0\ k4_ordinal1) \wedge (v3_ordinal1\ k4_ordinal1) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1\ X0)\wedge(v7_ordinal1\ X1))\Rightarrow(v7_ordinal1\ (k3_xreal_0\ X0\ X1)) \quad (6)$$

Assume the following.

$$m1_subset_1\ k5_numbers\ (k1_zfmisc_1\ k1_numbers) \quad (7)$$

Assume the following.

$$\forall X0.((v1_relat_1\ X0)\wedge((v1_funct_1\ X0)\wedge(v1_finseq_1\ X0)))\Rightarrow(m2_subset_1\ (k3_finseq_1\ X0)\ k1_numbers\ k5_numbers) \quad (8)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(m1_subset_1\ (k2_finseq_1\ X0)\ (k1_zfmisc_1\ k5_numbers)) \quad (9)$$

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.

$$\forall X0.((v1_relat_1\ X0)\wedge(v1_funct_1\ X0))\Rightarrow(\forall X1.(((v1_relat_1\ X1)\wedge(v1_funct_1\ X1))\Rightarrow(\forall X2.((v1_relat_1\ X2)\wedge(v1_funct_1\ X2))\Rightarrow((X2 = k13_funct_3\ X0\ X1)\Leftrightarrow((k9_xtuple_0\ X2 = k3_xboole_0\ (k9_xtuple_0\ X0)\ (k9_xtuple_0\ X1))\wedge(\forall X3.(X3 \in k9_xtuple_0\ X2)\Rightarrow(k1_funct_1\ X2\ X3 = k4_tarski\ (k1_funct_1\ X0\ X3)\ (k1_funct_1\ X1\ X3)))))))) \quad (11)$$

Assume the following.

$$\forall X0.((v1_relat_1\ X0)\wedge((v1_funct_1\ X0)\wedge(v1_finseq_1\ X0)))\Rightarrow(\forall X1.(m2_subset_1\ X1\ k1_numbers\ k5_numbers)\Rightarrow((X1 = k3_finseq_1\ X0)\Leftrightarrow(k2_finseq_1\ X1 = k9_xtuple_0\ X0))) \quad (12)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k4_ordinal1)\Rightarrow(v7_ordinal1\ X0) \quad (13)$$

Assume the following.

$$\forall X0.(v1_xboole_0\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ X0))\Rightarrow(v1_xboole_0\ X1)) \quad (14)$$

Theorem 1

$$\forall X0.((v1_relat_1\ X0)\wedge((v1_funct_1\ X0)\wedge(v1_finseq_1\ X0)))\Rightarrow(\forall X1.(((v1_relat_1\ X1)\wedge((v1_funct_1\ X1)\wedge(v1_finseq_1\ X1)))\Rightarrow(k9_xtuple_0\ (k13_funct_3\ X0\ X1) = k2_finseq_1\ (k3_xreal_0\ (k3_finseq_1\ X0)\ (k3_finseq_1\ X1))))))$$