

t62_modelc.3 (TMcKDwh- LAAu5wT117oCFhxJNkzavvFRwbw4)

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Let $v1_modelc.2 : \iota \Rightarrow o$ be given. Let $m2_finseq.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $m1_subset.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k25_modelc.2 : \iota \Rightarrow \iota$ be given. Let $k43_modelc.2 : \iota$ be given. Let $m1_orders.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_orders.1 : \iota \Rightarrow \iota$ be given. Let $k1_modelc.3 : \iota \Rightarrow \iota$ be given. Let $r7_modelc.3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k26_modelc.3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_modelc.3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_modelc.3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r8_modelc.2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k14_modelc.3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_modelc.3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k25_modelc.3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r4_modelc.3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_funct.1 : \iota \Rightarrow o$ be given. Let $v1_funct.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k22_modelc.3 : \iota \Rightarrow \iota$ be given. Let $k1_zfmisc.1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_modelc.3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat.1 : \iota \Rightarrow o$ be given. Let $g1_modelc.3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_modelc.3 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.((v1_modelc.2 X0) \wedge (m2_finseq.1 X0 k5_numbers)) \Rightarrow (\\
& \quad \forall X1.((v1_modelc.3 X1 X0) \wedge (l1_modelc.3 X1 X0)) \Rightarrow (\forall X2. \\
& \quad (m1_subset.1 X2 (k25_modelc.2 k43_modelc.2)) \Rightarrow (\forall X3.(m1_orders.1 \\
& \quad X3 (k1_orders.1 (k1_modelc.3 X0))) \Rightarrow ((r8_modelc.2 X2 (k14_modelc.3 \\
& \quad X0 X1)) \Rightarrow ((v3_modelc.3 X1 X0) \vee ((r8_modelc.2 X2 (k14_modelc.3 X0 \\
& \quad (k25_modelc.3 X2 X0 X3 X1))) \wedge (r4_modelc.3 X0 X1 (k25_modelc.3 X2 \\
& \quad X0 X3 X1)))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq.1 X1 X0) \Leftrightarrow (m1_finseq.1 X1 X0) \tag{2}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((m1_subset_1 X0 (k25_modelc_2 \\ & k43_modelc_2)) \wedge (((v1_modelc_2 X1) \wedge (m1_finseq_1 X1 k5_numbers)) \wedge \\ & (m1_orders_1 X2 (k1_orders_1 (k1_modelc_3 X1)))) \Rightarrow ((v1_funct_1 \\ & (k26_modelc_3 X0 X1 X2)) \wedge ((v1_funct_2 (k26_modelc_3 X0 X1 X2) (\\ & k22_modelc_3 X1) (k22_modelc_3 X1)) \wedge (m1_subset_1 (k26_modelc_3 \\ & X0 X1 X2) (k1_zfmisc_1 (k2_zfmisc_1 (k22_modelc_3 X1) (k22_modelc_3 \\ & X1)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((m1_subset_1 X0 \\ & (k25_modelc_2 k43_modelc_2)) \wedge (((v1_modelc_2 X1) \wedge (m1_finseq_1 \\ & X1 k5_numbers)) \wedge ((m1_orders_1 X2 (k1_orders_1 (k1_modelc_3 X1)) \wedge \\ & ((v1_modelc_3 X3 X1) \wedge (l1_modelc_3 X3 X1)))) \Rightarrow ((v1_modelc_3 (\\ & k25_modelc_3 X0 X1 X2 X3) X1) \wedge (l1_modelc_3 (k25_modelc_3 X0 X1 X2 \\ & X3) X1)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_modelc_2 X1) \wedge (m1_finseq_1 X1 k5_numbers)) \Rightarrow \\ & ((v1_modelc_3 (k10_modelc_3 X0 X1) X1) \wedge (l1_modelc_3 (k10_modelc_3 \\ & X0 X1) X1)) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m1_subset_1 X0 (k25_modelc_2 k43_modelc_2)) \Rightarrow (\forall X1. \\ & ((v1_modelc_2 X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (\forall X2. \\ & (m1_orders_1 X2 (k1_orders_1 (k1_modelc_3 X1))) \Rightarrow (\forall X3. \\ & ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 (k22_modelc_3 X1) (k22_modelc_3 \\ & X1)) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (k22_modelc_3 \\ & X1) (k22_modelc_3 X1)))))) \Rightarrow ((X3 = k26_modelc_3 X0 X1 X2) \Leftrightarrow (\forall X4. \\ & (X4 \in k22_modelc_3 X1) \Rightarrow (k1_funct_1 X3 X4 = k25_modelc_3 X0 X1 X2 (\\ & k10_modelc_3 X4 X1)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_modelc_2 X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\\ & \forall X1. (m1_subset_1 X1 (k25_modelc_2 k43_modelc_2)) \Rightarrow (\forall X2. \\ & ((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \Rightarrow ((r7_modelc_3 X0 X1 X2) \Leftrightarrow (\forall X3. \\ & ((X3 \in k22_modelc_3 X0) \wedge (r8_modelc_2 X1 (k14_modelc_3 X0 (k10_modelc_3 \\ & X3 X0)))) \Rightarrow ((v3_modelc_3 (k10_modelc_3 X3 X0) X0) \vee ((r4_modelc_3 \\ & X0 (k10_modelc_3 X3 X0) (k10_modelc_3 (k1_funct_1 X2 X3) X0)) \wedge (\\ & r8_modelc_2 X1 (k14_modelc_3 X0 (k10_modelc_3 (k1_funct_1 X2 X3) \\ & X0)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v1_modelc_2 X1)\wedge(m2_finseq_1 X1 k5_numbers))\Rightarrow \\ & (((v1_modelc_3 X0 X1)\wedge(l1_modelc_3 X0 X1))\Rightarrow(k10_modelc_3 X0 \\ & X1 = X0))\wedge((\neg(v1_modelc_3 X0 X1)\wedge(l1_modelc_3 X0 X1))\Rightarrow(k10_modelc_3 \\ & X0 X1 = g1_modelc_3 X1 (k7_modelc_3 X1) (k7_modelc_3 X1) (k7_modelc_3 \\ & X1)))) \end{aligned} \tag{9}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1)))\Rightarrow(v1_relat_1 X2) \end{aligned} \tag{10}$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_modelc_2 X0)\wedge(m2_finseq_1 X0 k5_numbers))\Rightarrow(\\ & \forall X1.(m1_subset_1 X1 (k25_modelc_2 k43_modelc_2))\Rightarrow(\forall X2. \\ & (m1_orders_1 X2 (k1_orders_1 (k1_modelc_3 X0)))\Rightarrow(r7_modelc_3 \\ & X0 X1 (k26_modelc_3 X1 X0 X2)))) \end{aligned}$$