

t54_modelc_3

(TMaa5PgXPaCsmimt8vaLn9igFQHfVod9NSr)

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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 $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k23_modelc_3 : \iota \Rightarrow \iota$ 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. Let $v7_modelc_2 : \iota \Rightarrow o$ be given. Let $u1_modelc_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_modelc_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r6_modelc_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k11_modelc_2 : \iota \Rightarrow \iota$ be given. Let $k12_modelc_2 : \iota \Rightarrow \iota$ be given. Let $k7_modelc_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1_modelc_2 X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (v7_modelc_2 X0) \Rightarrow (X0 = k7_modelc_2 (k11_modelc_2 X0) (k12_modelc_2 X0)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (2)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_modelc_2 X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\\
& \quad \forall X1.((v1_modelc_2 X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (\\
& \quad \quad \forall X2.((v1_modelc_2 X2) \wedge (m2_finseq_1 X2 k5_numbers)) \Rightarrow (\\
& \quad \quad \quad \forall X3.((v1_funct_1 X3) \wedge ((v1_funct_2 X3 k5_numbers (k23_modelc_3 \\
& \quad \quad \quad X2)) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k23_modelc_3 \\
& \quad \quad \quad X2)))))) \Rightarrow (\neg(k7_modelc_2 X0 X1 \in u1_modelc_3 X2 (k10_modelc_3 (\\
& \quad \quad \quad k3_funct_2 k5_numbers (k23_modelc_3 X2) X3 np_1) X2)) \wedge ((\forall X4. \\
& \quad \quad \quad (v7_ordinal1 X4) \Rightarrow (r6_modelc_3 X2 (k10_modelc_3 (k1_funct_1 X3 \\
& \quad \quad \quad X4) X2) (k10_modelc_3 (k3_funct_2 k5_numbers (k23_modelc_3 X2) \\
& \quad \quad \quad X3 (k1_nat_1 X4 np_1) X2))) \wedge ((\exists X4.(v7_ordinal1 X4) \wedge (\\
& \quad \quad \quad (r1_xxreal_0 np_1 X4) \wedge (\neg(k7_modelc_2 X0 X1 \in u1_modelc_3 X2 (k10_modelc_3 \\
& \quad \quad \quad (k1_funct_1 X3 X4) X2)) \wedge ((X0 \in u1_modelc_3 X2 (k10_modelc_3 (k1_funct_1 \\
& \quad \quad \quad X3 X4) X2)) \wedge (\neg X1 \in u1_modelc_3 X2 (k10_modelc_3 (k1_funct_1 X3 X4) \\
& \quad \quad \quad X2)))))) \wedge (\forall X4.(v7_ordinal1 X4) \Rightarrow (\neg(r1_xxreal_0 np_1 \\
& \quad \quad \quad X4) \wedge ((X1 \in u1_modelc_3 X2 (k10_modelc_3 (k1_funct_1 X3 X4) X2)) \wedge \\
& \quad \quad \quad (\forall X5.(v7_ordinal1 X5) \Rightarrow ((r1_xxreal_0 np_1 X5) \Rightarrow ((r1_xxreal_0 \\
& \quad \quad \quad X4 X5) \vee ((k7_modelc_2 X0 X1 \in u1_modelc_3 X2 (k10_modelc_3 (k1_funct_1 \\
& \quad \quad \quad X3 X5) X2)) \wedge (X0 \in u1_modelc_3 X2 (k10_modelc_3 (k1_funct_1 X3 X5) \\
& \quad \quad \quad X2))))))))))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_modelc_2 X0) \wedge (m1_finseq_1 X0 k5_numbers)) \Rightarrow (\\
& \quad (v1_modelc_2 (k12_modelc_2 X0)) \wedge (m2_finseq_1 (k12_modelc_2 X0) k5_numbers))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_modelc_2 X0) \wedge (m1_finseq_1 X0 k5_numbers)) \Rightarrow (\\
& \quad (v1_modelc_2 (k11_modelc_2 X0)) \wedge (m2_finseq_1 (k11_modelc_2 X0) k5_numbers))
\end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((v1_modelc_2 X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\\
& \quad \forall X1.((v1_modelc_2 X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (\\
& \quad \quad \forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 X2 k5_numbers (k23_modelc_3 \\
& \quad \quad X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k23_modelc_3 \\
& \quad \quad X1)))))) \Rightarrow (\neg(v7_modelc_2 X0) \wedge ((X0 \in u1_modelc_3 X1 (k10_modelc_3 \\
& \quad \quad (k3_funct_2 k5_numbers (k23_modelc_3 X1) X2 np_1) X1)) \wedge ((\forall X3. \\
& \quad \quad (v7_ordinal1 X3) \Rightarrow (r6_modelc_3 X1 (k10_modelc_3 (k1_funct_1 X2 \\
& \quad \quad X3) X1) (k10_modelc_3 (k3_funct_2 k5_numbers (k23_modelc_3 X1) \\
& \quad \quad X2 (k1_nat_1 X3 np_1)) X1))) \wedge ((\exists X3.(v7_ordinal1 X3) \wedge (\\
& \quad \quad (r1_xxreal_0 np_1 X3) \wedge (\neg(X0 \in u1_modelc_3 X1 (k10_modelc_3 (k1_funct_1 \\
& \quad \quad X2 X3) X1)) \wedge ((k11_modelc_2 X0 \in u1_modelc_3 X1 (k10_modelc_3 (k1_funct_1 \\
& \quad \quad X2 X3) X1)) \wedge (\neg k12_modelc_2 X0 \in u1_modelc_3 X1 (k10_modelc_3 (k1_funct_1 \\
& \quad \quad X2 X3) X1)))))) \wedge (\forall X3.(v7_ordinal1 X3) \Rightarrow (\neg(r1_xxreal_0 \\
& \quad \quad np_1 X3) \wedge ((k12_modelc_2 X0 \in u1_modelc_3 X1 (k10_modelc_3 (k1_funct_1 \\
& \quad \quad X2 X3) X1)) \wedge (\forall X4.(v7_ordinal1 X4) \Rightarrow ((r1_xxreal_0 np_1 \\
& \quad \quad X4) \Rightarrow ((r1_xxreal_0 X3 X4) \vee ((X0 \in u1_modelc_3 X1 (k10_modelc_3 (\\
& \quad \quad k1_funct_1 X2 X4) X1)) \wedge (k11_modelc_2 X0 \in u1_modelc_3 X1 (k10_modelc_3 \\
& \quad \quad (k1_funct_1 X2 X4) X1))))))))))))))
\end{aligned}$$