

t36_modelc_1

(TMGQsY18VF9GmDir8e4u6XT2aFuXKvKq7CK)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k30_modelc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k48_modelc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r3_modelc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k53_modelc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k25_modelc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_modelc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $np_1 : \iota$ be given. Let $k2_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v10_modelc_1 : \iota \Rightarrow o$ 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 $l2_modelc_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((v1_partfun1 X1 X0) \wedge \\
 & (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)))) \Rightarrow (\forall X2. \\
 & (m1_subset_1 X2 X0) \Rightarrow (\forall X3. ((\neg v1_xboole_0 X3) \wedge (m1_subset_1 \\
 & X3 (k1_zfmisc_1 (k30_modelc_1 X0)))) \Rightarrow (\forall X4. (m1_subset_1 \\
 & X4 (u1_struct_0 (k48_modelc_1 X0 X1 X3))) \Rightarrow ((r3_modelc_1 X0 X1 X3 \\
 & X2 (k25_modelc_1 (k48_modelc_1 X0 X1 X3) X4)) \Leftrightarrow (\exists X5. (m1_modelc_1 \\
 & X5 X0 X1) \wedge ((k3_funct_2 k5_numbers X0 X5 k6_numbers = X2) \wedge (r3_modelc_1 \\
 & X0 X1 X3 (k3_funct_2 k5_numbers X0 X5 np_1) X4)))))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((v1_partfun1 X1 X0) \wedge \\
 & (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)))) \Rightarrow (\forall X2. \\
 & (m1_subset_1 X2 X0) \Rightarrow (\forall X3. ((\neg v1_xboole_0 X3) \wedge (m1_subset_1 \\
 & X3 (k1_zfmisc_1 (k30_modelc_1 X0)))) \Rightarrow (\forall X4. (m1_subset_1 \\
 & X4 (u1_struct_0 (k48_modelc_1 X0 X1 X3))) \Rightarrow (\forall X5. (m1_subset_1 \\
 & X5 (u1_struct_0 (k48_modelc_1 X0 X1 X3))) \Rightarrow ((r3_modelc_1 X0 X1 X3 \\
 & X2 (k2_lattices (k48_modelc_1 X0 X1 X3) X4 X5)) \Leftrightarrow ((r3_modelc_1 X0 \\
 & X1 X3 X2 X4) \wedge (r3_modelc_1 X0 X1 X3 X2 X5)))))))))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \end{aligned} \quad (3)$$

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.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0 \ X0) \wedge (((v1_partfun1 \\ & X1 \ X0) \wedge (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X0)))) \wedge ((\\ & \neg v1_xboole_0 \ X2) \wedge (m1_subset_1 \ X2 \ (k1_zfmisc_1 \ (k30_modelc_1 \\ & X0)))))) \Rightarrow ((\neg v2_struct_0 \ (k48_modelc_1 \ X0 \ X1 \ X2)) \wedge (v10_modelc_1 \\ & (k48_modelc_1 \ X0 \ X1 \ X2))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 \ X0) \wedge ((v1_partfun1 \ X1 \ X0) \wedge \\ & (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X0)))))) \Rightarrow (\forall X2. \\ & (m1_modelc_1 \ X2 \ X0 \ X1) \Rightarrow ((v1_funct_1 \ X2) \wedge ((v1_funct_2 \ X2 \ k5_numbers \\ & X0) \wedge (m1_subset_1 \ X2 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ k5_numbers \ X0)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0 \ X0) \wedge (((v1_partfun1 \\ & X1 \ X0) \wedge (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X0)))) \wedge ((\\ & \neg v1_xboole_0 \ X2) \wedge (m1_subset_1 \ X2 \ (k1_zfmisc_1 \ (k30_modelc_1 \\ & X0)))))) \Rightarrow (l2_modelc_1 \ (k48_modelc_1 \ X0 \ X1 \ X2)) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((\neg v1_xboole_0 \ X0) \wedge \\ & (((v1_funct_1 \ X2) \wedge ((v1_funct_2 \ X2 \ X0 \ X1) \wedge (m1_subset_1 \ X2 \ (k1_zfmisc_1 \\ & (k2_zfmisc_1 \ X0 \ X1)))))) \wedge (m1_subset_1 \ X3 \ X0))) \Rightarrow (m1_subset_1 \ (\\ & k3_funct_2 \ X0 \ X1 \ X2 \ X3) \ X1) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 \ X0) \wedge ((v10_modelc_1 \ X0) \wedge \\ & (l2_modelc_1 \ X0))) \wedge (m1_subset_1 \ X1 \ (u1_struct_0 \ X0))) \Rightarrow (m1_subset_1 \\ & (k25_modelc_1 \ X0 \ X1) \ (u1_struct_0 \ X0)) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_partfun1 X1 X0) \wedge \\
& (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)))) \Rightarrow (\forall X2. \\
& ((\neg v1_xboole_0 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k30_modelc_1 \\
& X0)))) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k48_modelc_1 \\
& X0 X1 X2))) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 (k48_modelc_1 \\
& X0 X1 X2))) \Rightarrow (k53_modelc_1 X0 X1 X2 X3 X4 = k2_lattices (k48_modelc_1 \\
& X0 X1 X2) X3 (k25_modelc_1 (k48_modelc_1 X0 X1 X2) X4)))))) \\
& \hspace{15em} (11)
\end{aligned}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_partfun1 X1 X0) \wedge \\
& (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)))) \Rightarrow (\forall X2. \\
& ((\neg v1_xboole_0 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k30_modelc_1 \\
& X0)))) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k48_modelc_1 \\
& X0 X1 X2))) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 (k48_modelc_1 \\
& X0 X1 X2))) \Rightarrow (\forall X5.(m1_subset_1 X5 (u1_struct_0 (k48_modelc_1 \\
& X0 X1 X2))) \Rightarrow ((\forall X6.(m1_subset_1 X6 X0) \Rightarrow ((r3_modelc_1 X0 \\
& X1 X2 X6 X4) \Rightarrow (r3_modelc_1 X0 X1 X2 X6 X5)))) \Rightarrow (\forall X6.(m1_subset_1 \\
& X6 X0) \Rightarrow ((r3_modelc_1 X0 X1 X2 X6 (k53_modelc_1 X0 X1 X2 X3 X4) \Rightarrow (r3_modelc_1 \\
& X0 X1 X2 X6 (k53_modelc_1 X0 X1 X2 X3 X5))))))))))
\end{aligned}$$