

t12_modelc_3
(TMVuBCdpibgJArjeRVuwKJDa4TEqeR9FE2d)

October 27, 2020

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 $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k13_modelc_2 : \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k18_modelc_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\neg(\neg r1_xxreal_0 X0 X1) \wedge ((\neg v3_xxreal_0 X1) \wedge (\neg v2_xxreal_0 X0)))) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski (k1_tarski X0) X1) \Leftrightarrow (X0 \in X1) \quad (3)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((r1_xxreal_0 k6_numbers X0) \Rightarrow (r1_xxreal_0 X1 (k2_xcmplx_0 X0 X1)))) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (5)$$

Assume the following.

$$m1_subset_1 \ k1_xboole_0 \ k4_ordinal1 \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski \ X0 \ X1) \Rightarrow (k2_xboole_0 \ X0 \ X1 = X1) \tag{7}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_modelc_2 \ X0) \wedge (m2_finseq_1 \ X0 \ k5_numbers)) \Rightarrow (\\ & \forall X1.((v1_modelc_2 \ X1) \wedge (m2_finseq_1 \ X1 \ k5_numbers)) \Rightarrow (\\ & \forall X2.(m1_subset_1 \ X2 \ (k1_zfmisc_1 \ (k13_modelc_2 \ X0))) \Rightarrow \\ & (\forall X3.(m1_subset_1 \ X3 \ (k1_zfmisc_1 \ (k13_modelc_2 \ X0))) \Rightarrow \\ & ((X3 = k2_xboole_0 \ X2 \ (k1_tarski \ X1)) \Rightarrow ((X1 \in X2) \vee (k18_modelc_3 \\ & \ X0 \ X3 = k7_real_1 \ (k18_modelc_3 \ X0 \ X2) \ (k3_finseq_1 \ X1)))))) \end{aligned} \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 \ X0) \wedge (v1_xxreal_0 \ X1)) \Rightarrow (r1_xxreal_0 \ X0 \ X0) \tag{9}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v1_xboole_0 \ X0) \wedge ((\neg v1_xboole_0 \ X1) \wedge \\ & (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ & \ X2 \ X0 \ X1) \Leftrightarrow (m1_subset_1 \ X2 \ X1)) \end{aligned} \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 \ X1 \ X0) \Leftrightarrow (m1_finseq_1 \ X1 \ X0) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 \ X0 \ k1_numbers) \wedge (v1_xreal_0 \ X1)) \Rightarrow (k7_real_1 \ X0 \ X1 = k2_xcmplx_0 \ X0 \ X1) \tag{12}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{13}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{14}$$

Assume the following.

$$(\neg v1_xboole_0 \ k4_ordinal1) \wedge (v3_ordinal1 \ k4_ordinal1) \tag{15}$$

Assume the following.

$$v1_xboole_0 \ k1_xboole_0 \tag{16}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge((\neg v1_xboole_0 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 X0))))\Rightarrow(\forall X2.(m2_subset_1 X2 X0 X1)\Rightarrow(m1_subset_1 X2 X0)) \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0)\Rightarrow((v1_funct_1 X1)\wedge(v1_finseq_1 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers X0)))) \quad (18)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow((v1_relat_1 X1)\wedge(v1_funct_1 X1)\wedge(v1_finseq_1 X1)) \quad (19)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (20)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v1_finseq_1 X0)))\Rightarrow(m2_subset_1 (k3_finseq_1 X0) k1_numbers k5_numbers) \quad (21)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_modelc_2 X0)\wedge(m1_finseq_1 X0 k5_numbers))\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k13_modelc_2 X0))))\Rightarrow(m1_subset_1 (k18_modelc_3 X0 X1) k1_numbers) \quad (22)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers)\wedge(v1_xreal_0 X1))\Rightarrow(k7_real_1 X0 X1 = k7_real_1 X1 X0) \quad (23)$$

Assume the following.

$$\forall X0.\forall X1.k2_xboole_0 X0 X1 = k2_xboole_0 X1 X0 \quad (24)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(v1_xxreal_0 X0) \quad (25)$$

Assume the following.

$$\forall X0.((v1_xxreal_0 X0)\wedge(v2_xxreal_0 X0))\Rightarrow((\neg v1_xboole_0 X0)\wedge((v1_xxreal_0 X0)\wedge(\neg v3_xxreal_0 X0))) \quad (26)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\neg v3_xreal_0 X0) \quad (27)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (28)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (v1_xboole_0 X1)) \quad (29)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_modelc_2 X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\\ & \forall X1.((v1_modelc_2 X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (\\ & \forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k13_modelc_2 X0))) \Rightarrow \\ & (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 (k13_modelc_2 X0))) \Rightarrow \\ & ((X2 = k2_xboole_0 X3 (k1_tarski X1)) \Rightarrow (r1_xreal_0 (k18_modelc_3 \\ & X0 X2) (k7_real_1 (k18_modelc_3 X0 X3) (k3_finseq_1 X1)))))) \end{aligned}$$