

t32_clopban3

(TMKit3CyJDM4NWgAueNFMBu6c7jJ3Zq4qsx)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_normsp_0 : \iota \Rightarrow o$ be given. Let $v4_normsp_0 : \iota \Rightarrow o$ be given. Let $v2_clvect_1 : \iota \Rightarrow o$ be given. Let $v3_clvect_1 : \iota \Rightarrow o$ be given. Let $v4_clvect_1 : \iota \Rightarrow o$ be given. Let $v5_clvect_1 : \iota \Rightarrow o$ be given. Let $v8_clvect_1 : \iota \Rightarrow o$ be given. Let $l2_clvect_1 : \iota \Rightarrow o$ 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 $k5_numbers : \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ 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 $k1_numbers : \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_power : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_normsp_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_comseq_2 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_seq_2 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $v2_clopban3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_series_1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v3_valued_0 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $l2_normsp_0 : \iota \Rightarrow o$ be given. Let $l1_normsp_0 : \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_clvect_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers k1_numbers) \wedge \\
 & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow \\
 & (\forall X1.((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers k1_numbers) \wedge \\
 & (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow \\
 & (\neg(\forall X2.(m2_subset_1 X2 k1_numbers k5_numbers) \Rightarrow ((r1_xxreal_0 \\
 & k6_numbers (k3_funct_2 k5_numbers k1_numbers X0 X2)) \wedge (k3_funct_2 \\
 & k5_numbers k1_numbers X1 X2 = k2_power X2 (k3_funct_2 k5_numbers \\
 & k1_numbers X0 X2)))))) \wedge ((v2_comseq_2 X1) \wedge ((\neg r1_xxreal_0 (k2_seq_2 \\
 & X1) np_1) \wedge (v1_series_1 X0))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_normsp_0 X0) \wedge \\ & ((v4_normsp_0 X0) \wedge ((v2_clvect_1 X0) \wedge ((v3_clvect_1 X0) \wedge ((v4_clvect_1 \\ & X0) \wedge ((v5_clvect_1 X0) \wedge ((v8_clvect_1 X0) \wedge (l2_clvect_1 X0)))))))))) \Rightarrow \\ & (\forall X1.((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers (u1_struct_0 \\ & X0)) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (u1_struct_0 \\ & X0)))))) \Rightarrow (\forall X2.(m2_subset_1 X2 k1_numbers k5_numbers) \Rightarrow \\ & (r1_xreal_0 k6_numbers (k1_seq_1 (k4_normsp_0 X0 X1) X2)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ & X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (3)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((\neg v1_xboole_0 X0) \wedge \\ & (((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1)))))) \wedge (m1_subset_1 X3 X0))) \Rightarrow (k3_funct_2 X0 \\ & X1 X2 X3 = k1_funct_1 X2 X3) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v3_valued_0 X0))) \Rightarrow (k1_seq_1 X0 X1 = k1_funct_1 X0 X1) \quad (6)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (7)$$

Assume the following.

$$v3_membered k1_numbers \quad (8)$$

Assume the following.

$$\forall X0. (l2_normsp_0 X0) \Rightarrow ((l1_normsp_0 X0) \wedge (l2_struct_0 X0)) \quad (9)$$

Assume the following.

$$\forall X0. (l2_clvect_1 X0) \Rightarrow ((l1_clvect_1 X0) \wedge (l2_normsp_0 X0)) \quad (10)$$

Assume the following.

$$m1_subset_1 \ k5_numbers \ (k1_zfmisc_1 \ k1_numbers) \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((\neg v2_struct_0 \ X0)\wedge(l1_normsp_0 \ X0))\wedge \\ & ((v1_funct_1 \ X1)\wedge((v1_funct_2 \ X1 \ k5_numbers \ (u1_struct_0 \ X0))\wedge \\ & (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ k5_numbers \ (u1_struct_0 \\ & X0))))))\Rightarrow((v1_funct_1 \ (k4_normsp_0 \ X0 \ X1))\wedge((v1_funct_2 \ (k4_normsp_0 \\ & X0 \ X1) \ k5_numbers \ k1_numbers)\wedge(m1_subset_1 \ (k4_normsp_0 \ X0 \ X1) \\ & (k1_zfmisc_1 \ (k2_zfmisc_1 \ k5_numbers \ k1_numbers)))))) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 \ X0)\wedge((v13_algstr_0 \ X0)\wedge((v2_rlvect_1 \\ & X0)\wedge((v3_rlvect_1 \ X0)\wedge((v4_rlvect_1 \ X0)\wedge((v3_normsp_0 \ X0)\wedge \\ & ((v4_normsp_0 \ X0)\wedge((v2_clvect_1 \ X0)\wedge((v3_clvect_1 \ X0)\wedge((v4_clvect_1 \\ & X0)\wedge((v5_clvect_1 \ X0)\wedge((v8_clvect_1 \ X0)\wedge(l2_clvect_1 \ X0))))))))))\Rightarrow \\ & (\forall X1.((v1_funct_1 \ X1)\wedge((v1_funct_2 \ X1 \ k5_numbers \ (u1_struct_0 \\ & X0))\wedge(m1_subset_1 \ X1 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ k5_numbers \ (u1_struct_0 \\ & X0))))))\Rightarrow((v2_clpban3 \ X1 \ X0)\Leftrightarrow(v1_series_1 \ (k4_normsp_0 \ X0 \ X1)))) \end{aligned} \quad (13)$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 \ X2 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X1)))\Rightarrow(v1_relat_1 \ X2) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.(v3_membered \ X1)\Rightarrow(\forall X2.(m1_subset_1 \ X2 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X1)))\Rightarrow(v3_valued_0 \ X2)) \quad (16)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 \ X0)\wedge((v13_algstr_0 \ X0)\wedge((v2_rlvect_1 \\ & X0)\wedge((v3_rlvect_1 \ X0)\wedge((v4_rlvect_1 \ X0)\wedge((v3_normsp_0 \ X0)\wedge \\ & ((v4_normsp_0 \ X0)\wedge((v2_clvect_1 \ X0)\wedge((v3_clvect_1 \ X0)\wedge((v4_clvect_1 \\ & X0)\wedge((v5_clvect_1 \ X0)\wedge((v8_clvect_1 \ X0)\wedge(l2_clvect_1 \ X0))))))))))\Rightarrow \\ & (\forall X1.((v1_funct_1 \ X1)\wedge((v1_funct_2 \ X1 \ k5_numbers \ (u1_struct_0 \\ & X0))\wedge(m1_subset_1 \ X1 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ k5_numbers \ (u1_struct_0 \\ & X0))))))\Rightarrow(\forall X2.((v1_funct_1 \ X2)\wedge((v1_funct_2 \ X2 \ k5_numbers \\ & k1_numbers)\wedge(m1_subset_1 \ X2 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ k5_numbers \\ & k1_numbers))))\Rightarrow(\neg(\forall X3.(m2_subset_1 \ X3 \ k1_numbers \ k5_numbers)\Rightarrow \\ & (k1_seq_1 \ X2 \ X3 = k2_power \ X3 \ (k1_seq_1 \ (k4_normsp_0 \ X0 \ X1) \ X3))))\wedge \\ & ((v2_comseq_2 \ X2)\wedge((\neg r1_xreal_0 \ (k2_seq_2 \ X2) \ np_1)\wedge(v2_clpban3 \\ & X1 \ X0)))))) \end{aligned}$$