

t34_graph_5

(TMJfRRsXgB2WdhAjFEyv5wSFht133Ak3mdV)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_graph_1 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u4_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v7_graph_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_graph_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $r2_graph_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_graph_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_graph_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_graph_5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2_graph_1 : \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k7_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_graph_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. (r1_tarski (k4_xboole_0 X0 X1) X2) \Rightarrow (r1_tarski X0 (k2_xboole_0 X1 X2)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. k4_xboole_0 (k2_xboole_0 X0 X1) X1 = k4_xboole_0 X0 X1 \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. r1_tarski (k4_xboole_0 X0 X1) X0 \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_graph_1 X0)) \Rightarrow (\forall X1. \\ & (m2_finseq_1 X1 (u4_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 \\ & (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow \\ & (\forall X4. (m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow (\forall X5. ((\\ & v7_graph_1 X5 X0) \wedge (m2_graph_1 X5 X0)) \Rightarrow (\neg (r1_xxreal_0 np_1 (k3_finseq_1 \\ & X5)) \wedge ((r1_graph_5 X0 X5 X2 X3) \wedge ((r1_graph_4 X0 X3 X4 (k1_funct_1 \\ & X1 np_1)) \wedge ((k3_finseq_1 X1 = np_1) \wedge (\forall X6. ((v7_graph_1 \\ & X6 X0) \wedge (m2_graph_1 X6 X0)) \Rightarrow (\neg (X6 = k8_finseq_1 (u4_struct_0 X0) \\ & X5 X1) \wedge (r1_graph_5 X0 X6 X2 X4))))))))))))) \quad (4) \end{aligned}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_graph_1 X0)) \Rightarrow (\forall X1. \\ & (m2_finseq_1 X1 (u4_struct_0 X0)) \Rightarrow (\forall X2.((v7_graph_1 X2 \\ & X0) \wedge (m2_graph_1 X2 X0)) \Rightarrow (\forall X3.((v7_graph_1 X3 X0) \wedge (m2_graph_1 \\ & X3 X0)) \Rightarrow (((X2 = k8_finseq_1 (u4_struct_0 X0) X3 X1) \wedge ((r1_xxreal_0 \\ & np_1 (k3_finseq_1 X3)) \wedge (k3_finseq_1 X1 = np_1))) \Rightarrow (k2_graph_5 \\ & X0 X2 = k2_xboole_0 (k2_graph_5 X0 X3) (k1_tarski (k1_funct_1 (u2_graph_1 \\ & X0) (k1_funct_1 X1 np_1)))))))))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1_tarski X0 X1) \wedge (r1_tarski X1 X2)) \Rightarrow (r1_tarski X0 X2) \quad (6)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (7)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (k7_subset_1 X0 X1 X2 = k4_xboole_0 X1 X2) \quad (8)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l1_graph_1 X0)) \Rightarrow (\forall X1. (m2_graph_1 X1 X0) \Rightarrow (m2_finseq_1 X1 (u4_struct_0 X0))) \quad (9)$$

Assume the following.

$$\forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge (l1_graph_1 X0)) \wedge (m1_finseq_1 X1 (u4_struct_0 X0))) \Rightarrow (m1_subset_1 (k2_graph_5 X0 X1) (k1_zfmisc_1 (u1_struct_0 X0))) \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_graph_1 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 \\ & (u1_struct_0 X0)) \Rightarrow (\forall X3. ((v7_graph_1 X3 X0) \wedge (m2_graph_1 \\ & X3 X0)) \Rightarrow (\forall X4. (r2_graph_5 X0 X1 X2 X3 X4) \Leftrightarrow ((r1_graph_5 X0 \\ & X3 X1 X2) \wedge (r1_tarski (k7_subset_1 (u1_struct_0 X0) (k2_graph_5 \\ & X0 X3) (k1_tarski X2)) X4)))))) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_graph_1 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 \\ & (u1_struct_0 X0)) \Rightarrow (\forall X3. (r1_graph_4 X0 X1 X2 X3) \Leftrightarrow ((k1_funct_1 \\ & (u1_graph_1 X0) X3 = X1) \wedge (k1_funct_1 (u2_graph_1 X0) X3 = X2)))))) \end{aligned} \quad (12)$$

Theorem 1

$$\begin{aligned} & \forall X0.\forall X1.((\neg v2_struct_0 X1)\wedge(l1_graph_1 X1))\Rightarrow(\\ & \forall X2.(m2_finseq_1 X2 (u4_struct_0 X1))\Rightarrow(\forall X3.(m1_subset_1 \\ & X3 (u1_struct_0 X1))\Rightarrow(\forall X4.(m1_subset_1 X4 (u1_struct_0 \\ & X1))\Rightarrow(\forall X5.(m1_subset_1 X5 (u1_struct_0 X1))\Rightarrow(\forall X6. \\ & ((v7_graph_1 X6 X1)\wedge(m2_graph_1 X6 X1))\Rightarrow(\forall X7.((v7_graph_1 \\ & X7 X1)\wedge(m2_graph_1 X7 X1))\Rightarrow(((X6 = k8_finseq_1 (u4_struct_0 X1) \\ & X7 X2)\wedge((r1_xreal_0 np_1 (k3_finseq_1 X7))\wedge((k3_finseq_1 X2 = \\ & np_1)\wedge((r2_graph_5 X1 X3 X4 X7 X0)\wedge(r1_graph_4 X1 X4 X5 (k1_funct_1 \\ & X2 np_1))))))\Rightarrow(r2_graph_5 X1 X3 X5 X6 (k2_xboole_0 X0 (k1_tarSKI \\ & X4)))))))))) \end{aligned}$$