

t47_graph_5
(TMS1N3b4MWXXtGUJogYcxvw3QPfznH4X8X4)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. 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 $k1_numbers : \iota$ be given. Let $r5_graph_5 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_graph_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $r1_xreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r6_graph_5 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $np_0 : \iota$ be given. Let $k8_graph_5 : \iota$ be given. Let $k2_arytm_2 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((v1_funct_1 X3) \wedge \\ & ((v1_funct_2 X3 X0 X1) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X0 X1)))) \Rightarrow ((X2 \in X0) \Rightarrow ((X1 = k1_xboole_0) \vee (k1_funct_1 X3 X2 \in X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.((\\ & \neg v2_struct_0 X1) \wedge (l1_graph_1 X1)) \Rightarrow ((r5_graph_5 X1 X0) \Rightarrow (r6_graph_5 \\ & X1 X0))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.\forall X2.(m2_finseq_1 \\ & X2 X1) \Rightarrow ((X0 \in k4_finseq_1 X2) \Rightarrow (k1_funct_1 X2 X0 \in X1))) \end{aligned} \quad (4)$$

Assume the following.

$$v1_xboole_0 np_0 \quad (5)$$

Assume the following.

$$k8_graph_5 = k2_arytm_2 \quad (6)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (7)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (8)$$

Assume the following.

$$v6_membered\ k4_ordinal1 \quad (9)$$

Assume the following.

$$\neg v1_xboole_0\ k2_arytm_2 \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0\ X0) \wedge (l1_graph_1\ X0)) \Rightarrow (\forall X1. \\ & (m2_finseq_1\ X1\ (u4_struct_0\ X0)) \Rightarrow (\forall X2.((v1_relat_1\ X2) \wedge \\ & (v1_funct_1\ X2)) \Rightarrow ((r6_graph_5\ X0\ X2) \Rightarrow (\forall X3.(m2_finseq_1 \\ & X3\ k1_numbers) \Rightarrow ((X3 = k9_graph_5\ X0\ X1\ X2) \Leftrightarrow ((k4_finseq_1\ X1 = k4_finseq_1 \\ & X3) \wedge (\forall X4.(m1_subset_1\ X4\ k5_numbers) \Rightarrow ((X4 \in k4_finseq_1 \\ & X1) \Rightarrow (k1_seq_1\ X3\ X4 = k1_funct_1\ X2\ (k1_funct_1\ X1\ X4)))))))))) \\ & \quad (11) \end{aligned}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0\ X0) \wedge (l1_graph_1\ X0)) \Rightarrow (\forall X1. \\ & ((v1_relat_1\ X1) \wedge (v1_funct_1\ X1)) \Rightarrow ((r5_graph_5\ X0\ X1) \Leftrightarrow ((v1_funct_1 \\ & X1) \wedge ((v1_funct_2\ X1\ (u4_struct_0\ X0)\ k8_graph_5) \wedge (m1_subset_1 \\ & X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ (u4_struct_0\ X0)\ k8_graph_5)))))) \\ & \quad (12) \end{aligned}$$

Assume the following.

$$\begin{aligned} & k8_graph_5 = ReplSep\ (toset\ (\lambda X0 : \iota.m1_subset_1\ X0\ k1_numbers)) \\ & (\lambda X0 : \iota.r1_xxreal_0\ k6_numbers\ X0)\ (\lambda X0 : \iota.X0) \\ & \quad (13) \end{aligned}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v6_membered\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ X0) \Rightarrow \\ & (v7_ordinal1\ X1)) \\ & \quad (14) \end{aligned}$$

Theorem 1

$$\begin{aligned} & \forall X0.(((v1_relat_1\ X0) \wedge (v1_funct_1\ X0)) \Rightarrow (\forall X1.(((\\ & \neg v2_struct_0\ X1) \wedge (l1_graph_1\ X1)) \Rightarrow (\forall X2.(m2_finseq_1 \\ & X2\ (u4_struct_0\ X1)) \Rightarrow (\forall X3.(m2_finseq_1\ X3\ k1_numbers) \Rightarrow \\ & (((r5_graph_5\ X1\ X0) \wedge (X3 = k9_graph_5\ X1\ X2\ X0)) \Rightarrow (\forall X4.(m1_subset_1 \\ & X4\ k5_numbers) \Rightarrow ((X4 \in k4_finseq_1\ X3) \Rightarrow (r1_xxreal_0\ k6_numbers \\ & (k1_seq_1\ X3\ X4)))))))))) \\ & \quad (15) \end{aligned}$$