

t24_graphsp
(TMVoKHQNsc3rbs8LmA6SuXJc9NifiZDweZ9)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_graph_1 : \iota \Rightarrow o$ be given. Let $l1_graph_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ 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 $u4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k8_graph_5 : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_graphsp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $r1_graph_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $np_0 : \iota$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $k11_graphsp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_graphsp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_graph_1 X0) \wedge (l1_graph_1 \\ & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.((v1_funct_1 X3) \wedge \\ & ((v1_funct_2 X3 (u4_struct_0 X0) k8_graph_5) \wedge (m1_subset_1 X3 \\ & (k1_zfmisc_1 (k2_zfmisc_1 (u4_struct_0 X0) k8_graph_5)))))) \Rightarrow \\ & ((r1_xxreal_0 k6_numbers (k12_graphsp X0 X1 X2 X3)) \Leftrightarrow (\exists X4. \\ & (X4 \in u4_struct_0 X0) \wedge (r1_graph_4 X0 X1 X2 X4)))))) \end{aligned} \quad (2)$$

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.

$$v1_xboole_0 np_0 \quad (4)$$

Assume the following.

$$\neg v1_xreal_0 \ np_0 \ (k4_xcmplx_0 \ np_1) \quad (5)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (6)$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k1_numbers) \Rightarrow (k1_real_1 \ X0 = k4_xcmplx_0 \ X0) \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.(((\neg v2_struct_0 \\ & X0) \wedge ((v2_graph_1 \ X0) \wedge (l1_graph_1 \ X0))) \wedge ((m1_subset_1 \ X1 \ (u1_struct_0 \\ & X0)) \wedge ((m1_subset_1 \ X2 \ (u1_struct_0 \ X0)) \wedge ((v1_funct_1 \ X3) \wedge ((\\ & v1_funct_2 \ X3 \ (u4_struct_0 \ X0) \ k8_graph_5) \wedge (m1_subset_1 \ X3 \ (k1_zfmisc_1 \\ & (k2_zfmisc_1 \ (u4_struct_0 \ X0) \ k8_graph_5))))))) \Rightarrow (k12_graphsp \\ & X0 \ X1 \ X2 \ X3 = k11_graphsp \ X0 \ X1 \ X2 \ X3) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.(((\neg v2_struct_0 \ X0) \wedge ((v2_graph_1 \ X0) \wedge (l1_graph_1 \\ & X0))) \Rightarrow (\forall X1.(m1_subset_1 \ X1 \ (u1_struct_0 \ X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 \ X2 \ (u1_struct_0 \ X0)) \Rightarrow (\forall X3.((v1_relat_1 \ X3) \wedge \\ & (v1_funct_1 \ X3)) \Rightarrow (((\exists X4.(X4 \in u4_struct_0 \ X0) \wedge (r1_graph_4 \\ & X0 \ X1 \ X2 \ X4)) \Rightarrow (k11_graphsp \ X0 \ X1 \ X2 \ X3 = k1_funct_1 \ X3 \ (k10_graphsp \\ & X0 \ X1 \ X2))) \wedge ((\forall X4.\neg(X4 \in u4_struct_0 \ X0) \wedge (r1_graph_4 \ X0 \\ & X1 \ X2 \ X4)) \Rightarrow (k11_graphsp \ X0 \ X1 \ X2 \ X3 = k1_real_1 \ np_1)))))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 \ X2 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X1))) \Rightarrow (v1_relat_1 \ X2) \quad (10)$$

Theorem 1

$$\begin{aligned} & \forall X0.(((\neg v2_struct_0 \ X0) \wedge ((v2_graph_1 \ X0) \wedge (l1_graph_1 \\ & X0))) \Rightarrow (\forall X1.(m1_subset_1 \ X1 \ (u1_struct_0 \ X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 \ X2 \ (u1_struct_0 \ X0)) \Rightarrow (\forall X3.((v1_funct_1 \ X3) \wedge \\ & ((v1_funct_2 \ X3 \ (u4_struct_0 \ X0) \ k8_graph_5) \wedge (m1_subset_1 \ X3 \\ & (k1_zfmisc_1 \ (k2_zfmisc_1 \ (u4_struct_0 \ X0) \ k8_graph_5)))))) \Rightarrow \\ & ((k12_graphsp \ X0 \ X1 \ X2 \ X3 = k1_real_1 \ np_1) \Leftrightarrow (\forall X4.\neg(X4 \in u4_struct_0 \\ & X0) \wedge (r1_graph_4 \ X0 \ X1 \ X2 \ X4)))))) \end{aligned}$$