

t99_jgraph_4
(TMFt5oRYJCT6ug9gtWYTvYWESAL8tEw4qtR)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k17_euclid : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_jgraph_4 : \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k13_complex1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k18_euclid : \iota \Rightarrow \iota$ be given. Let $k12_euclid : \iota \Rightarrow \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k19_euclid : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_square_1 : \iota \Rightarrow \iota$ be given. Let $k9_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_square_1 : \iota \Rightarrow \iota$ be given. Let $k6_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k5_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v5_rltopsp1 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $l1_rltopsp1 : \iota \Rightarrow o$ be given. Let $l1_rlvect_1 : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X1.(v1_xxreal_0 X1) \Rightarrow (((r1_xxreal_0 X1 (k13_complex1 \\
& (k18_euclid X0) (k12_euclid X0))) \Rightarrow (r1_xxreal_0 (k17_euclid \\
& X0) k6_numbers) \vee (k3_funct_2 (u1_struct_0 (k15_euclid np_2)) \\
& (u1_struct_0 (k15_euclid np_2)) (k7_jgraph_4 X1) X0 = k19_euclid \\
& (k8_real_1 (k12_euclid X0) (k7_square_1 (k9_real_1 np_1) (k4_square_1 \\
& (k13_complex1 (k6_xcmplx_0 (k13_complex1 (k18_euclid X0) (k12_euclid \\
& X0)) X1) (k9_real_1 np_1 X1)))))) (k8_real_1 (k12_euclid X0) (\\
& k13_complex1 (k6_xcmplx_0 (k13_complex1 (k18_euclid X0) (k12_euclid \\
& X0)) X1) (k9_real_1 np_1 X1)))))) \wedge ((r1_xxreal_0 (k17_euclid \\
& X0) k6_numbers) \Rightarrow (k3_funct_2 (u1_struct_0 (k15_euclid np_2)) \\
& (u1_struct_0 (k15_euclid np_2)) (k7_jgraph_4 X1) X0 = X0)))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & ((v2_xreal_0 \ np_2) \wedge (m2_subset_1 \ np_2 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_2 \ k5_numbers) \wedge (m1_subset_1 \ np_2 \ k1_numbers)) \end{aligned} \quad (2)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((\neg v1_xboole_0 \ X0) \wedge \\ & (((v1_funct_1 \ X2) \wedge ((v1_funct_2 \ X2 \ X0 \ X1) \wedge (m1_subset_1 \ X2 \ (k1_zfmisc_1 \\ & (k2_zfmisc_1 \ X0 \ X1)))))) \wedge (m1_subset_1 \ X3 \ X0)) \Rightarrow (k3_funct_2 \ X0 \\ & X1 \ X2 \ X3 = k1_funct_1 \ X2 \ X3) \end{aligned} \quad (4)$$

Assume the following.

$$v6_membered \ k4_ordinal1 \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. (v7_ordinal1 \ X0) \Rightarrow ((\neg v2_struct_0 \ (k15_euclid \ X0)) \wedge \\ & (v5_rltopsp1 \ (k15_euclid \ X0))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 \ X0) \wedge (l1_struct_0 \ X0)) \Rightarrow (\neg v1_xboole_0 \\ & (u1_struct_0 \ X0)) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0. (l1_rltopsp1 \ X0) \Rightarrow ((l1_rlvect_1 \ X0) \wedge (l1_pre_topc \ X0)) \quad (8)$$

Assume the following.

$$\forall X0. (l1_pre_topc \ X0) \Rightarrow (l1_struct_0 \ X0) \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0. (v1_xreal_0 \ X0) \Rightarrow ((v1_funct_1 \ (k7_jgraph_4 \ X0)) \wedge (\\ & (v1_funct_2 \ (k7_jgraph_4 \ X0) \ (u1_struct_0 \ (k15_euclid \ np_2)) \\ & (u1_struct_0 \ (k15_euclid \ np_2)))) \wedge (m1_subset_1 \ (k7_jgraph_4 \\ & X0) \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ (u1_struct_0 \ (k15_euclid \ np_2)) \\ & (u1_struct_0 \ (k15_euclid \ np_2)))))) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0. (v7_ordinal1 \ X0) \Rightarrow ((v5_rltopsp1 \ (k15_euclid \ X0)) \wedge \\ & (l1_rltopsp1 \ (k15_euclid \ X0))) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (12)$$

Assume the following.

$$\forall X0.(v6_membered X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow (v7_ordinal1 X1)) \quad (13)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.\forall X2. \\ & ((X1 \in X2) \wedge (X2 = ReplSep (toset (\lambda X3 : \iota.m1_subset_1 X3 (u1_struct_0 \\ & (k15_euclid np_2)))) (\lambda X3 : \iota.(r1_xxreal_0 (k17_euclid \\ & X3) k6_numbers) \wedge (X3 \neq k4_struct_0 (k15_euclid np_2))) (\lambda X3 : \\ & \iota.X3))) \Rightarrow ((r1_xxreal_0 X0 (k1_real_1 np_1)) \vee ((r1_xxreal_0 \\ & np_1 X0) \vee (k1_funct_1 (k7_jgraph_4 X0) X1 \in X2)))) \end{aligned}$$