

t39_jordan1 (TMVNUDbWfXheaMn-
jKfuG8Aa4WxjkvncGpda)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ 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 $k17_euclid : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k18_euclid : \iota \Rightarrow \iota$ be given. Let $k1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_struct_0 : \iota \Rightarrow \iota$ 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 $v6_membered : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $m1_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_rltopsp1 : \iota \Rightarrow o$ be given. Let $l1_rlvect_1 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v1_pre_topc : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v5_rltopsp1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (1)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
& X1 k1_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k1_numbers) \Rightarrow (\forall X3. \\
& (m1_subset_1 X3 k1_numbers) \Rightarrow (\forall X4.(m1_subset_1 X4 (k1_zfmisc_1 \\
& (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (\forall X5.(m1_subset_1 \\
& X5 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow ((X4 = ReplSep \\
& (toset (\lambda X6 : \iota.m1_subset_1 X6 (u1_struct_0 (k15_euclid np_2)))) \\
& (\lambda X6 : \iota. \neg(\neg(k17_euclid X6 = X0) \wedge ((r1_xxreal_0 (k18_euclid \\
& X6) X3) \wedge (r1_xxreal_0 X2 (k18_euclid X6)))) \wedge (\neg(r1_xxreal_0 (\\
& k17_euclid X6) X1) \wedge ((r1_xxreal_0 X0 (k17_euclid X6)) \wedge (k18_euclid \\
& X6 = X3))) \wedge (\neg(r1_xxreal_0 (k17_euclid X6) X1) \wedge ((r1_xxreal_0 \\
& X0 (k17_euclid X6)) \wedge (k18_euclid X6 = X2))) \wedge (\neg(k17_euclid X6 = X1) \wedge \\
& ((r1_xxreal_0 (k18_euclid X6) X3) \wedge (r1_xxreal_0 X2 (k18_euclid \\
& X6)))))) (\lambda X6 : \iota.X6)) \wedge (X5 = ReplSep (toset (\lambda X6 : \iota. \\
& m1_subset_1 X6 (u1_struct_0 (k15_euclid np_2)))) (\lambda X6 : \iota. \\
& (\neg r1_xxreal_0 (k17_euclid X6) X0) \wedge (\neg r1_xxreal_0 X1 (k17_euclid \\
& X6)) \wedge (\neg r1_xxreal_0 (k18_euclid X6) X2) \wedge (\neg r1_xxreal_0 X3 (k18_euclid \\
& X6)))) (\lambda X6 : \iota.X6))) \Rightarrow (r1_tarski X5 (k2_struct_0 (k1_pre_topc \\
& (k15_euclid np_2) (k3_subset_1 (u1_struct_0 (k15_euclid np_2)) \\
& X4))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\
& ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers))
\end{aligned} \tag{3}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{4}$$

Assume the following.

$$v6_membered k4_ordinal1 \tag{5}$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(m1_pre_topc X1 X0) \Rightarrow (l1_pre_topc X1)) \tag{6}$$

Assume the following.

$$\forall X0.(l1_rltopsp1 X0) \Rightarrow ((l1_rlvect_1 X0) \wedge (l1_pre_topc X0)) \tag{7}$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (l1_struct_0 X0) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (m1_subset_1 (k3_subset_1 X0 X1) (k1_zfmisc_1 X0)) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.((l1_pre_topc\ X0)\wedge(m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0\ X0))))\Rightarrow((v1_pre_topc\ (k1_pre_topc\ X0\ X1))\wedge(m1_pre_topc\ (k1_pre_topc\ X0\ X1)\ X0)) \quad (10)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow((v5_rltopsp1\ (k15_euclid\ X0))\wedge(l1_rltopsp1\ (k15_euclid\ X0))) \quad (11)$$

Assume the following.

$$\forall X0.(l1_struct_0\ X0)\Rightarrow(k2_struct_0\ X0 = u1_struct_0\ X0) \quad (12)$$

Assume the following.

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

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1\ X0\ k1_numbers)\Rightarrow(\forall X1.(m1_subset_1\ X1\ k1_numbers)\Rightarrow(\forall X2.(m1_subset_1\ X2\ k1_numbers)\Rightarrow(\forall X3. \\ & (m1_subset_1\ X3\ k1_numbers)\Rightarrow(\forall X4.(m1_subset_1\ X4\ (k1_zfmisc_1\ (u1_struct_0\ (k15_euclid\ np_2))))\Rightarrow(\forall X5.(m1_subset_1\ X5\ (k1_zfmisc_1\ (u1_struct_0\ (k15_euclid\ np_2))))\Rightarrow(((X4 = ReplSep \\ & (toset\ (\lambda X6 : \iota.m1_subset_1\ X6\ (u1_struct_0\ (k15_euclid\ np_2)))) \\ & (\lambda X6 : \iota.\neg(\neg(k17_euclid\ X6 = X0)\wedge((r1_xxreal_0\ (k18_euclid\ X6)\ X3)\wedge(r1_xxreal_0\ X2\ (k18_euclid\ X6))))\wedge((\neg(r1_xxreal_0\ (\\ & k17_euclid\ X6)\ X1)\wedge(r1_xxreal_0\ X0\ (k17_euclid\ X6))\wedge(k18_euclid\ X6 = X3))\wedge((\neg(r1_xxreal_0\ (k17_euclid\ X6)\ X1)\wedge(r1_xxreal_0 \\ & X0\ (k17_euclid\ X6))\wedge(k18_euclid\ X6 = X2))\wedge(\neg(k17_euclid\ X6 = X1)\wedge \\ & ((r1_xxreal_0\ (k18_euclid\ X6)\ X3)\wedge(r1_xxreal_0\ X2\ (k18_euclid\ X6))))))\wedge(\lambda X6 : \iota.X6)\wedge(X5 = ReplSep\ (toset\ (\lambda X6 : \iota. \\ & m1_subset_1\ X6\ (u1_struct_0\ (k15_euclid\ np_2))))\ (\lambda X6 : \iota. \\ & (\neg r1_xxreal_0\ (k17_euclid\ X6)\ X0)\wedge((\neg r1_xxreal_0\ X1\ (k17_euclid\ X6))\wedge((\neg r1_xxreal_0\ (k18_euclid\ X6)\ X2)\wedge(\neg r1_xxreal_0\ X3\ (k18_euclid \\ & X6))))\ (\lambda X6 : \iota.X6)))\Rightarrow(m1_subset_1\ X5\ (k1_zfmisc_1\ (u1_struct_0\ (k1_pre_topc\ (k15_euclid\ np_2)\ (k3_subset_1\ (u1_struct_0\ (k15_euclid\ np_2)\ X4)))))))))) \end{aligned}$$