

t5_jordan5b

(TMQwRPK71cRwo2QFiyUkCcrTYjNFYuJq7re)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k1_rltopsp1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k18_euclid : \iota \Rightarrow \iota$ be given. Let $k17_euclid : \iota \Rightarrow \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v5_rlvect_1 : \iota \Rightarrow o$ be given. Let $v6_rlvect_1 : \iota \Rightarrow o$ be given. Let $v7_rlvect_1 : \iota \Rightarrow o$ be given. Let $v8_rlvect_1 : \iota \Rightarrow o$ be given. Let $l1_rlvect_1 : \iota \Rightarrow o$ be given. Let $v1_sppol_1 : \iota \Rightarrow o$ 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 $k4_ordinal1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $v5_rltopsp1 : \iota \Rightarrow o$ be given. Let $l1_rltopsp1 : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
 & (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
 & (((k17_euclid X0 = k17_euclid X1) \wedge (k18_euclid X0 = k18_euclid X1)) \Rightarrow \\
 & (X0 = X1)))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
 & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\
 & ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\
 & X0)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\
 & (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (X1 \in k1_rltopsp1 \\
 & X0 X1 X2)))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\neg(X0 \in k1_rltopsp1 (k15_euclid np_2) X1 X2) \wedge ((X0 \in k1_rltopsp1 \\
& (k15_euclid np_2) X1 X3) \wedge ((X1 \neq X0) \wedge ((\neg X2 \in k1_rltopsp1 (k15_euclid \\
& np_2) X1 X3) \wedge (\neg X3 \in k1_rltopsp1 (k15_euclid np_2) X1 X2)))))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (((v1_sppol_1 (k1_rltopsp1 (k15_euclid np_2) X0 X1)) \wedge (X2 \in k1_rltopsp1 \\
& (k15_euclid np_2) X0 X1)) \Rightarrow (k18_euclid X0 = k18_euclid X2))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\
& (((X0 \in k1_rltopsp1 (k15_euclid np_2) X1 X2) \wedge ((X3 \in k1_rltopsp1 \\
& (k15_euclid np_2) X1 X2) \wedge (k18_euclid X0 = k18_euclid X3)) \Rightarrow ((\\
& k17_euclid X0 = k17_euclid X3) \vee (v1_sppol_1 (k1_rltopsp1 (k15_euclid \\
& np_2) X1 X2)))))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\
& ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers))
\end{aligned} \tag{6}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{7}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v7_ordinal1 X0) \Rightarrow ((v2_pre_topc (k15_euclid X0)) \wedge \\
& ((v13_algstr_0 (k15_euclid X0)) \wedge ((v2_rlvect_1 (k15_euclid X0)) \wedge \\
& ((v3_rlvect_1 (k15_euclid X0)) \wedge ((v4_rlvect_1 (k15_euclid X0)) \wedge \\
& ((v5_rlvect_1 (k15_euclid X0)) \wedge ((v6_rlvect_1 (k15_euclid X0)) \wedge \\
& ((v7_rlvect_1 (k15_euclid X0)) \wedge ((v8_rlvect_1 (k15_euclid X0)) \wedge \\
& (v5_rltopsp1 (k15_euclid X0))))))))))
\end{aligned} \tag{8}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v7_ordinal1 X0) \Rightarrow ((\neg v2_struct_0 (k15_euclid X0)) \wedge \\
& (v5_rltopsp1 (k15_euclid X0)))
\end{aligned} \tag{9}$$

Assume the following.

$$\forall X0.(l1_rltopsp1\ X0)\Rightarrow((l1_rlvect_1\ X0)\wedge(l1_pre_topc\ X0)) \quad (10)$$

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.

$$\forall X0.(m1_subset_1\ X0\ k4_ordinal1)\Rightarrow(v7_ordinal1\ X0) \quad (12)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1\ X0\ (u1_struct_0\ (k15_euclid\ np_2)))\Rightarrow \\ & (\forall X1.(m1_subset_1\ X1\ (u1_struct_0\ (k15_euclid\ np_2)))\Rightarrow \\ & (\forall X2.(m1_subset_1\ X2\ (u1_struct_0\ (k15_euclid\ np_2)))\Rightarrow \\ & (((X2 \in k1_rltopsp1\ (k15_euclid\ np_2)\ X0\ X1)\wedge(k18_euclid\ X2 = k18_euclid \\ & X0))\Rightarrow((k18_euclid\ X0 = k18_euclid\ X1)\vee(X2 = X0)))))) \end{aligned}$$