

t40_jordan2c

(TMaG3EV8iDiG99uLMEQ3xF4hFSkhFFzZZGG)

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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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_rltopsp1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k5_topmetr : \iota$ be given. Let $k1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v5_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $np_1 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \neg (X0 \in X1) \wedge (v1_xboole_0 X1) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 (k15_euclid X0)))) \Rightarrow \\ & (\forall X2. (m1_subset_1 X2 (u1_struct_0 (k15_euclid X0))) \Rightarrow (\\ & \forall X3. (m1_subset_1 X3 (u1_struct_0 (k15_euclid X0))) \Rightarrow (\forall X4. \\ & (m1_subset_1 X4 (u1_struct_0 (k15_euclid X0))) \Rightarrow (\neg (X2 \in X1) \wedge (\\ & X3 \in X1) \wedge ((X4 \in X1) \wedge (r1_tarski (k1_rltopsp1 (k15_euclid X0) X2 \\ & X3) X1) \wedge (r1_tarski (k1_rltopsp1 (k15_euclid X0) X3 X4) X1) \wedge (\forall X5. \\ & ((v1_funct_1 X5) \wedge ((v1_funct_2 X5 (u1_struct_0 k5_topmetr) (u1_struct_0 \\ & (k1_pre_topc (k15_euclid X0) X1))) \wedge (m1_subset_1 X5 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (u1_struct_0 k5_topmetr) (u1_struct_0 (k1_pre_topc \\ & (k15_euclid X0) X1)))))) \Rightarrow (\neg (v5_pre_topc X5 k5_topmetr (k1_pre_topc \\ & (k15_euclid X0) X1)) \wedge ((X2 = k1_funct_1 X5 k6_numbers) \wedge (X4 = k1_funct_1 \\ & X5 np_1)))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\
& (m1_subset_1 X1 (u1_struct_0 (k15_euclid X0))) \Rightarrow (\forall X2.(\\
& m1_subset_1 X2 (u1_struct_0 (k15_euclid X0))) \Rightarrow (\forall X3.(m1_subset_1 \\
& X3 (u1_struct_0 (k15_euclid X0))) \Rightarrow (\forall X4.((\neg v1_xboole_0 \\
& X4) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (u1_struct_0 (k15_euclid X0)))))) \Rightarrow \\
& (\forall X5.((v1_funct_1 X5) \wedge ((v1_funct_2 X5 (u1_struct_0 k5_topmetr) \\
& (u1_struct_0 (k1_pre_topc (k15_euclid X0) X4))) \wedge (m1_subset_1 \\
& X5 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 k5_topmetr) (u1_struct_0 \\
& (k1_pre_topc (k15_euclid X0) X4)))))) \Rightarrow (\forall X6.((v1_funct_1 \\
& X6) \wedge ((v1_funct_2 X6 (u1_struct_0 k5_topmetr) (u1_struct_0 (k1_pre_topc \\
& (k15_euclid X0) X4))) \wedge (m1_subset_1 X6 (k1_zfmisc_1 (k2_zfmisc_1 \\
& (u1_struct_0 k5_topmetr) (u1_struct_0 (k1_pre_topc (k15_euclid \\
& X0) X4)))))) \Rightarrow (\neg (v5_pre_topc X5 k5_topmetr (k1_pre_topc (k15_euclid \\
& X0) X4)) \wedge ((X1 = k1_funct_1 X5 k6_numbers) \wedge ((X2 = k1_funct_1 X5 np_1) \wedge \\
& ((v5_pre_topc X6 k5_topmetr (k1_pre_topc (k15_euclid X0) X4)) \wedge \\
& ((X2 = k1_funct_1 X6 k6_numbers) \wedge ((X3 = k1_funct_1 X6 np_1) \wedge (\forall X7. \\
& ((v1_funct_1 X7) \wedge ((v1_funct_2 X7 (u1_struct_0 k5_topmetr) (u1_struct_0 \\
& (k1_pre_topc (k15_euclid X0) X4))) \wedge (m1_subset_1 X7 (k1_zfmisc_1 \\
& (k2_zfmisc_1 (u1_struct_0 k5_topmetr) (u1_struct_0 (k1_pre_topc \\
& (k15_euclid X0) X4)))))) \Rightarrow (\neg (v5_pre_topc X7 k5_topmetr (k1_pre_topc \\
& (k15_euclid X0) X4)) \wedge ((X1 = k1_funct_1 X7 k6_numbers) \wedge (X3 = k1_funct_1 \\
& X7 np_1))))))))))))))
\end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\
& (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 (k15_euclid X0)))) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid X0))) \Rightarrow (\\
& \forall X3.(m1_subset_1 X3 (u1_struct_0 (k15_euclid X0))) \Rightarrow (\forall X4. \\
& (m1_subset_1 X4 (u1_struct_0 (k15_euclid X0))) \Rightarrow (\forall X5.(\\
& m1_subset_1 X5 (u1_struct_0 (k15_euclid X0))) \Rightarrow (\forall X6.(m1_subset_1 \\
& X6 (u1_struct_0 (k15_euclid X0))) \Rightarrow (\forall X7.(m1_subset_1 X7 \\
& (u1_struct_0 (k15_euclid X0))) \Rightarrow (\forall X8.(m1_subset_1 X8 (\\
& u1_struct_0 (k15_euclid X0))) \Rightarrow (\neg (X2 \in X1) \wedge ((X3 \in X1) \wedge ((X4 \in X1) \wedge \\
& ((X5 \in X1) \wedge ((X6 \in X1) \wedge ((X7 \in X1) \wedge ((X8 \in X1) \wedge ((r1_tarski (k1_rltopsp1 \\
& (k15_euclid X0) X2 X3) X1) \wedge ((r1_tarski (k1_rltopsp1 (k15_euclid \\
& X0) X3 X4) X1) \wedge ((r1_tarski (k1_rltopsp1 (k15_euclid X0) X4 X5) X1) \wedge \\
& ((r1_tarski (k1_rltopsp1 (k15_euclid X0) X5 X6) X1) \wedge ((r1_tarski \\
& (k1_rltopsp1 (k15_euclid X0) X6 X7) X1) \wedge ((r1_tarski (k1_rltopsp1 \\
& (k15_euclid X0) X7 X8) X1) \wedge (\forall X9.((v1_funct_1 X9) \wedge ((v1_funct_2 \\
& X9 (u1_struct_0 k5_topmetr) (u1_struct_0 (k1_pre_topc (k15_euclid \\
& X0) X1))) \wedge (m1_subset_1 X9 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 \\
& k5_topmetr) (u1_struct_0 (k1_pre_topc (k15_euclid X0) X1)))))) \Rightarrow \\
& (\neg (v5_pre_topc X9 k5_topmetr (k1_pre_topc (k15_euclid X0) X1)) \wedge \\
& ((X2 = k1_funct_1 X9 k6_numbers) \wedge (X8 = k1_funct_1 X9 np_1))))))))))))))
\end{aligned}$$