

t18_jordan7

(TMXgv4XTh1DamLpnM3V132onA8LpV9s3btF)

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Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $np_2 : \iota$ 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 $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $r1_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_funct_1 : \iota \Rightarrow o$ be given. Let $k2_reset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_jordan5c : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_tops_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\
 & \quad np_2)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid \\
 & \quad np_2))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid \\
 & \quad np_2))) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k15_euclid \\
 & \quad np_2))) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 (k15_euclid \\
 & \quad np_2)))) \Rightarrow (\forall X5.((v1_funct_1 X5) \wedge ((v1_funct_2 X5 (u1_struct_0 \\
 & \quad k5_topmetr) (u1_struct_0 (k1_pre_topc (k15_euclid np_2) X0))) \wedge \\
 & \quad (m1_subset_1 X5 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 k5_topmetr) \\
 & \quad (u1_struct_0 (k1_pre_topc (k15_euclid np_2) X0)))))) \Rightarrow (\forall X6. \\
 & \quad (m1_subset_1 X6 k1_numbers) \Rightarrow (\forall X7.(m1_subset_1 X7 k1_numbers) \Rightarrow \\
 & \quad (((r1_topreal1 (k15_euclid np_2) X1 X2 X0) \wedge ((v3_tops_2 X5 k5_topmetr \\
 & \quad (k1_pre_topc (k15_euclid np_2) X0)) \wedge ((k1_funct_1 X5 k6_numbers = \\
 & \quad X1) \wedge ((k1_funct_1 X5 np_1 = X2) \wedge ((k1_funct_1 X5 X6 = X3) \wedge ((r1_xxreal_0 \\
 & \quad k6_numbers X6) \wedge (r1_xxreal_0 X6 np_1) \wedge ((k1_funct_1 X5 X7 = X4) \wedge \\
 & \quad ((r1_xxreal_0 k6_numbers X7) \wedge ((r1_xxreal_0 X7 np_1) \wedge (r1_xxreal_0 \\
 & \quad X6 X7)))))))))) \Rightarrow (r1_jordan5c X0 X1 X2 X3 X4))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.((\neg v1_xboole_0 \\
& X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 (k15_euclid X0)))))) \Rightarrow \\
& (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (u1_struct_0 k5_topmetr) \\
& (u1_struct_0 (k15_euclid X0))) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\
& (k2_zfmisc_1 (u1_struct_0 k5_topmetr) (u1_struct_0 (k15_euclid \\
& X0)))))) \Rightarrow (\neg (v5_pre_topc X2 k5_topmetr (k15_euclid X0)) \wedge ((v2_funct_1 \\
& X2) \wedge ((k2_relset_1 (u1_struct_0 (k15_euclid X0)) X2 = X1) \wedge (\forall X3. \\
& ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 (u1_struct_0 k5_topmetr) (u1_struct_0 \\
& (k1_pre_topc (k15_euclid X0) X1))) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\
& (k2_zfmisc_1 (u1_struct_0 k5_topmetr) (u1_struct_0 (k1_pre_topc \\
& (k15_euclid X0) X1)))))) \Rightarrow (\neg (X3 = X2) \wedge (v3_tops_2 X3 k5_topmetr \\
& (k1_pre_topc (k15_euclid X0) X1)))))))))
\end{aligned} \tag{2}$$

Assume the following.

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

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (\\
& u1_struct_0 (k15_euclid np_2)))))) \Rightarrow (\forall X1.(m1_subset_1 \\
& X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow (\forall X2.(m1_subset_1 \\
& X2 (u1_struct_0 (k15_euclid np_2))) \Rightarrow (\forall X3.(m1_subset_1 \\
& X3 (u1_struct_0 (k15_euclid np_2))) \Rightarrow (\forall X4.(m1_subset_1 \\
& X4 (u1_struct_0 (k15_euclid np_2))) \Rightarrow (\forall X5.((v1_funct_1 \\
& X5) \wedge ((v1_funct_2 X5 (u1_struct_0 k5_topmetr) (u1_struct_0 (k15_euclid \\
& np_2))) \wedge (m1_subset_1 X5 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 \\
& k5_topmetr) (u1_struct_0 (k15_euclid np_2)))))) \Rightarrow (\forall X6. \\
& (m1_subset_1 X6 k1_numbers) \Rightarrow (\forall X7.(m1_subset_1 X7 k1_numbers) \Rightarrow \\
& (((r1_topreal1 (k15_euclid np_2) X1 X2 X0) \wedge ((v5_pre_topc X5 k5_topmetr \\
& (k15_euclid np_2)) \wedge ((v2_funct_1 X5) \wedge ((k2_relset_1 (u1_struct_0 \\
& (k15_euclid np_2)) X5 = X0) \wedge ((k1_funct_1 X5 k6_numbers = X1) \wedge \\
& (k1_funct_1 X5 np_1 = X2) \wedge ((k1_funct_1 X5 X6 = X3) \wedge ((r1_xxreal_0 \\
& k6_numbers X6) \wedge ((r1_xxreal_0 X6 np_1) \wedge ((k1_funct_1 X5 X7 = X4) \wedge \\
& ((r1_xxreal_0 k6_numbers X7) \wedge ((r1_xxreal_0 X7 np_1) \wedge (r1_xxreal_0 \\
& X6 X7))))))))) \Rightarrow (r1_jordan5c X0 X1 X2 X3 X4))))))
\end{aligned}$$