

t3_jordan17

(TMK5kKj46CmVAEZTRDBotNg8FkKv3Er8vTL)

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Let $v1_topreal2 : \iota \Rightarrow o$ 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 $r1_jordan6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k22_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k8_jordan6 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v2_compts_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k18_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k9_jordan6 : \iota \Rightarrow \iota$ be given. Let $r1_jordan5c : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ np_2)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid \\ np_2))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid \\ np_2)))) \Rightarrow (((v1_topreal2 X0) \wedge ((r1_jordan6 X0 X1 X2) \wedge (r1_jordan6 \\ X0 X2 X1))) \Rightarrow (X1 = X2)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v1_xboole_0 X0) \wedge ((v2_compts_1 X0 (k15_euclid np_2)) \wedge \\ (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))))) \Rightarrow \\ ((v1_topreal2 X0) \Rightarrow ((k18_pscomp_1 X0 \in k9_jordan6 X0) \wedge ((k22_pscomp_1 \\ X0 \in k9_jordan6 X0) \wedge ((k18_pscomp_1 X0 \in k8_jordan6 X0) \wedge (k22_pscomp_1 \\ X0 \in k8_jordan6 X0)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ np_2)))) \Rightarrow (m1_subset_1 (k22_pscomp_1 X0) (u1_struct_0 (k15_euclid \\ np_2))) \quad (3)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\
& \quad np_2)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid \\
& \quad np_2)))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k15_euclid \\
& \quad np_2)))) \Rightarrow ((r1_jordan6 X0 X1 X2) \Leftrightarrow (\neg(\neg(X1 \in k8_jordan6 X0) \wedge ((X2 \in \\
& \quad k9_jordan6 X0) \wedge (X2 \neq k18_pscomp_1 X0))) \wedge ((\neg(X1 \in k8_jordan6 X0) \wedge \\
& \quad ((X2 \in k8_jordan6 X0) \wedge (r1_jordan5c (k8_jordan6 X0) (k18_pscomp_1 \\
& \quad X0) (k22_pscomp_1 X0) X1 X2))) \wedge (\neg(X1 \in k9_jordan6 X0) \wedge ((X2 \in k9_jordan6 \\
& \quad X0) \wedge ((X2 \neq k18_pscomp_1 X0) \wedge (r1_jordan5c (k9_jordan6 X0) (k22_pscomp_1 \\
& \quad X0) (k18_pscomp_1 X0) X1 X2)))))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\
& \quad np_2)))) \Rightarrow ((v1_topreal2 X0) \Rightarrow ((\neg v1_xboole_0 X0) \wedge (v2_compts_1 \\
& \quad X0 (k15_euclid np_2))))
\end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((v1_topreal2 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 \\
& \quad (k15_euclid np_2)))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\
& \quad (k15_euclid np_2)))) \Rightarrow ((r1_jordan6 X0 X1 (k22_pscomp_1 X0)) \Rightarrow (\\
& \quad X1 \in k8_jordan6 X0))
\end{aligned}$$