

t53_jordan6

(TMJPCkCT5eY48QwrA1CNMKvUQsMn9cfdAYb)

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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 $k1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_topreal2 : \iota \Rightarrow o$ be given. Let $k9_subset.1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_jordan6 : \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k18_pscomp.1 : \iota \Rightarrow \iota$ be given. Let $k22_pscomp.1 : \iota \Rightarrow \iota$ be given. Let $k2_xboole.0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_jordan6 : \iota \Rightarrow \iota$ be given. Let $k3_xboole.0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xboole.0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_subset.1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole.0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. k2_xboole.0 (k3_xboole.0 X0 X1) (k4_xboole.0 X0 X1) = X0 \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (m1_subset.1 X0 (k1_zfmisc.1 (u1_struct.0 (k15_euclid \\ np_2)))) \Rightarrow ((v1_topreal2 X0) \Rightarrow ((k9_jordan6 X0 = k2_xboole.0 (k7_subset.1 \\ (u1_struct.0 (k15_euclid np_2)) X0 (k8_jordan6 X0)) (k2_tarski \\ (k18_pscomp.1 X0) (k22_pscomp.1 X0))) \wedge (k8_jordan6 X0 = k2_xboole.0 \\ (k7_subset.1 (u1_struct.0 (k15_euclid np_2)) X0 (k9_jordan6 \\ X0)) (k2_tarski (k18_pscomp.1 X0) (k22_pscomp.1 X0)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. k4_xboole.0 (k2_xboole.0 X0 X1) X1 = k4_xboole.0 X0 X1 \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset.1 X2 (k1_zfmisc.1 X0)) \Rightarrow (k9_subset.1 X0 X1 X2 = k3_xboole.0 X1 X2) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset.1 X1 (k1_zfmisc.1 X0)) \Rightarrow (k7_subset.1 X0 X1 X2 = k4_xboole.0 X1 X2) \quad (5)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow ((\neg v1_xboole_0 (k9_jordan6 X0)) \wedge (m1_subset_1 (k9_jordan6 X0) (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2))))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.k2_xboole_0 X0 X1 = k2_xboole_0 X1 X0 \quad (7)$$

Theorem 1

$$\begin{aligned} &\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 (k1_pre_topc (k15_euclid np_2) X0)))) \Rightarrow (((v1_topreal2 X0) \wedge (k9_subset_1 (u1_struct_0 (k15_euclid np_2)) X1 (k9_jordan6 X0) = k2_tarski (k18_pscomp_1 X0) (k22_pscomp_1 X0)) \wedge (k2_xboole_0 X1 (k9_jordan6 X0) = X0))) \Rightarrow (X1 = k8_jordan6 X0))) \end{aligned}$$