

t19_jordan_a
(TMQXCK2nfwd23LAfaYUdoqqQ8G9Ebao3nCz)

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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 $v2_compts_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_jordan7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k18_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $r1_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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 $v1_xbool_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 (k15_euclid X0)))) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 (k15_euclid X0)))) \Rightarrow (\forall X3. (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 (k15_euclid X0)))) \Rightarrow ((r1_topreal1 (k15_euclid X0) X1 X2 X3) \Rightarrow (v2_compts_1 X3 (k15_euclid X0)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. ((v1_topreal2 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))))) \Rightarrow (X0 = k1_jordan7 X0 (k18_pscomp_1 X0) (k18_pscomp_1 X0)) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. ((v1_topreal2 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow ((X1 \in X0) \Rightarrow ((X1 = k18_pscomp_1 X0) \vee (r1_topreal1 (k15_euclid np_2) X1 (k18_pscomp_1 X0) (k1_jordan7 X0 X1 (k18_pscomp_1 X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_2) \wedge (m2_subset_1 \ np_2 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_2 \ k5_numbers) \wedge (m1_subset_1 \ np_2 \ k1_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v1_xboole_0 \ X0) \wedge ((v2_compts_1 \\ & X0 \ (k15_euclid \ np_2)) \wedge (m1_subset_1 \ X0 \ (k1_zfmisc_1 \ (u1_struct_0 \\ & (k15_euclid \ np_2)))))) \wedge ((m1_subset_1 \ X1 \ (u1_struct_0 \ (k15_euclid \\ & np_2))) \wedge (m1_subset_1 \ X2 \ (u1_struct_0 \ (k15_euclid \ np_2)))))) \Rightarrow \\ & (m1_subset_1 \ (k1_jordan7 \ X0 \ X1 \ X2) \ (k1_zfmisc_1 \ (u1_struct_0 \ (\\ & k15_euclid \ np_2)))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m1_subset_1 \ X0 \ (k1_zfmisc_1 \ (u1_struct_0 \ (k15_euclid \\ & np_2)))) \Rightarrow (m1_subset_1 \ (k18_pscomp_1 \ X0) \ (u1_struct_0 \ (k15_euclid \\ & np_2))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m1_subset_1 \ X0 \ (k1_zfmisc_1 \ (u1_struct_0 \ (k15_euclid \\ & np_2)))) \Rightarrow ((v1_topreal2 \ X0) \Rightarrow ((\neg v1_xboole_0 \ X0) \wedge (v2_compts_1 \\ & X0 \ (k15_euclid \ np_2)))) \end{aligned} \quad (8)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((v1_topreal2 \ X0) \wedge (m1_subset_1 \ X0 \ (k1_zfmisc_1 \ (u1_struct_0 \\ & (k15_euclid \ np_2)))))) \Rightarrow (\forall X1. (m1_subset_1 \ X1 \ (u1_struct_0 \\ & (k15_euclid \ np_2)))) \Rightarrow ((X1 \in X0) \Rightarrow (v2_compts_1 \ (k1_jordan7 \ X0 \ X1 \\ & (k18_pscomp_1 \ X0) \ (k15_euclid \ np_2)))) \end{aligned}$$