

t24_jordan6 (TMX-
UfcdP7R8kduYjKpuFVR3wpF1E1xCtC7)

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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 $r1_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_jordan6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_jordan5c : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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.

$$\begin{aligned} \forall X0. (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (\forall X3. (m1_subset_1 X3 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (r1_tarski (k4_jordan6 X0 X1 X2 X3 X0))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (\forall X3. (m1_subset_1 X3 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (((r1_topreal1 (k15_euclid np_2) X1 X2 X0) \wedge (X3 \in X0)) \Rightarrow ((r1_jordan5c X0 X1 X2 X1 X3) \wedge (r1_jordan5c X0 X1 X2 X3 X2)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (\forall X3. (m1_subset_1 X3 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (k4_jordan6 X0 X1 X2 X3 = ReplSep (toset (\lambda X4 : \iota. m1_subset_1 X4 (u1_struct_0 (k15_euclid np_2)))) (\lambda X4 : \iota. r1_jordan5c X0 X1 X2 X3 X4) (\lambda X4 : \iota. X4)))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski\ X0\ X1)\Leftrightarrow(\forall X2.(X2 \in X0)\Rightarrow (X2 \in X1)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1)\Leftrightarrow((r1_tarski\ X0\ X1)\wedge(r1_tarski\ X1\ X0)) \quad (6)$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_subset_1\ X0\ (k1_zfmisc_1\ (u1_struct_0\ (k15_euclid \\ np_2))))\Rightarrow(\forall X1.(m1_subset_1\ X1\ (u1_struct_0\ (k15_euclid \\ np_2))))\Rightarrow(\forall X2.(m1_subset_1\ X2\ (u1_struct_0\ (k15_euclid \\ np_2))))\Rightarrow((r1_topreal1\ (k15_euclid\ np_2)\ X1\ X2\ X0)\Rightarrow(k4_jordan6 \\ X0\ X1\ X2\ X1 = X0)))) \end{aligned}$$