

t7\_jordan5c  
(TMGctreSf4qhEhrC1S6mNNF3PYEzAaws6V6X)

October 27, 2020

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  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v4\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_jordan5c : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_jordan5c : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  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  $k5\_numbers : \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v6\_membered : \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v13\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $v2\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v3\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v4\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v5\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v6\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v7\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v8\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v5\_rltopsp1 : \iota \Rightarrow o$  be given. Let  $l1\_rltopsp1 : \iota \Rightarrow o$  be given. Let  $l1\_rlvect\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid \\ & np\_2)))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 \\ & (k15\_euclid np\_2)))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 \\ & (k15\_euclid np\_2)))) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 \\ & (k15\_euclid np\_2)))) \Rightarrow (((X3 \in X1) \wedge ((v4\_pre\_topc (k9\_subset\_1 \\ & (u1\_struct\_0 (k15\_euclid np\_2)) X0 X1) (k15\_euclid np\_2)) \wedge ( \\ & r1\_topreal1 (k15\_euclid np\_2) X2 X3 X0))) \Rightarrow (k2\_jordan5c X0 X1 X2 \\ & X3 = X3)))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\neg(X0 \in X1) \wedge ((m1\_subset\_1 X1 (k1\_zfmisc\_1 X2)) \wedge (v1\_xboole\_0 X2)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X2))) \Rightarrow (m1\_subset\_1 X0 X2) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X0 (k1\_zfmisc\_1 X1))\Leftrightarrow(r1\_tarski X0 X1) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid \\ np\_2))))\Rightarrow(\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 \\ (k15\_euclid np\_2))))\Rightarrow(\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 \\ (k15\_euclid np\_2))))\Rightarrow(\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 \\ (k15\_euclid np\_2))))\Rightarrow(((X2 \in X1)\wedge((v4\_pre\_topc (k9\_subset\_1 \\ (u1\_struct\_0 (k15\_euclid np\_2)) X0 X1) (k15\_euclid np\_2))\wedge \\ r1\_topreal1 (k15\_euclid np\_2) X2 X3 X0))\Rightarrow(k1\_jordan5c X0 X1 X2 \\ X3 = X2)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X0 X1)\Rightarrow((v1\_xboole\_0 X1)\vee (X0 \in X1)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski X0 X1)\Rightarrow(k3\_xboole\_0 X0 X1 = X0) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.((v2\_pre\_topc X0)\wedge(l1\_pre\_topc X0))\Rightarrow(\forall X1. \\ (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))\Rightarrow(\forall X2. \\ (m1\_subset\_1 X2 (u1\_struct\_0 X0))\Rightarrow(\forall X3.(m1\_subset\_1 X3 \\ (u1\_struct\_0 X0))\Rightarrow((r1\_topreal1 X0 X2 X3 X1)\Rightarrow((X2 \in X1)\wedge(X3 \in X1)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} ((v2\_xxreal\_0 np\_2)\wedge(m2\_subset\_1 np\_2 k1\_numbers k5\_numbers))\wedge \\ ((m1\_subset\_1 np\_2 k5\_numbers)\wedge(m1\_subset\_1 np\_2 k1\_numbers)) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 X0))\Rightarrow(k9\_subset\_1 X0 X1 X2 = k3\_xboole\_0 X1 X2) \quad (10)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (11)$$

Assume the following.

$$v6\_membered k4\_ordinal1 \quad (12)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7\_ordinal1\ X0) \Rightarrow & ((v2\_pre\_topc\ (k15\_euclid\ X0)) \wedge \\ & ((v13\_algstr\_0\ (k15\_euclid\ X0)) \wedge ((v2\_rlvect\_1\ (k15\_euclid\ X0)) \wedge \\ & ((v3\_rlvect\_1\ (k15\_euclid\ X0)) \wedge ((v4\_rlvect\_1\ (k15\_euclid\ X0)) \wedge \\ & ((v5\_rlvect\_1\ (k15\_euclid\ X0)) \wedge ((v6\_rlvect\_1\ (k15\_euclid\ X0)) \wedge \\ & ((v7\_rlvect\_1\ (k15\_euclid\ X0)) \wedge ((v8\_rlvect\_1\ (k15\_euclid\ X0)) \wedge \\ & (v5\_rltopsp1\ (k15\_euclid\ X0)))))))))) \end{aligned} \quad (13)$$

Assume the following.

$$\forall X0.(l1\_rltopsp1\ X0) \Rightarrow ((l1\_rlvect\_1\ X0) \wedge (l1\_pre\_topc\ X0)) \quad (14)$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow ((v5\_rltopsp1\ (k15\_euclid\ X0)) \wedge (l1\_rltopsp1\ (k15\_euclid\ X0))) \quad (15)$$

Assume the following.

$$\forall X0.(v6\_membered\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ X0) \Rightarrow (v7\_ordinal1\ X1)) \quad (16)$$

**Theorem 1**

$$\begin{aligned} \forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k15\_euclid \\ np\_2)))) \Rightarrow & (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0 \\ (k15\_euclid\ np\_2)))) \Rightarrow & (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0 \\ (k15\_euclid\ np\_2)))) \Rightarrow & (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0 \\ (k15\_euclid\ np\_2)))) \Rightarrow & (((r1\_tarski\ X0\ X1) \wedge ((v4\_pre\_topc\ X0\ (k15\_euclid \\ np\_2)) \wedge (r1\_topreal1\ (k15\_euclid\ np\_2)\ X2\ X3\ X0))) \Rightarrow & ((k1\_jordan5c \\ X0\ X1\ X2\ X3 = X2) \wedge (k2\_jordan5c\ X0\ X1\ X2\ X3 = X3)))))) \end{aligned}$$