

t14\_jordan\_a  
(TMNgZLNrzRDdZX2kUu1dfaCNHpuAjczrdfU)

October 27, 2020

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  $k4\_jordan6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_jordan6 : \iota \Rightarrow \iota$  be given. Let  $k18\_pscomp\_1 : \iota \Rightarrow \iota$  be given. Let  $k22\_pscomp\_1 : \iota \Rightarrow \iota$  be given. Let  $k5\_jordan6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k9\_jordan6 : \iota \Rightarrow \iota$  be given. Let  $k9\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k18\_euclid : \iota \Rightarrow \iota$  be given. Let  $k1\_jordan5c : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_jordan6 : \iota \Rightarrow \iota$  be given. Let  $k10\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_pscomp\_1 : \iota \Rightarrow \iota$  be given. Let  $k8\_pscomp\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_jordan5c : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_jordan6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned}
& \forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid \\
& \quad np\_2)))) \Rightarrow ((v1\_topreal2 X0) \Rightarrow ((r1\_topreal1 (k15\_euclid np\_2) \\
& (k18\_pscomp\_1 X0) (k22\_pscomp\_1 X0) (k8\_jordan6 X0)) \wedge ((r1\_topreal1 \\
& (k15\_euclid np\_2) (k22\_pscomp\_1 X0) (k18\_pscomp\_1 X0) (k8\_jordan6 \\
& X0)) \wedge ((r1\_topreal1 (k15\_euclid np\_2) (k22\_pscomp\_1 X0) (k18\_pscomp\_1 \\
& X0) (k9\_jordan6 X0)) \wedge ((r1\_topreal1 (k15\_euclid np\_2) (k18\_pscomp\_1 \\
& X0) (k22\_pscomp\_1 X0) (k9\_jordan6 X0)) \wedge ((k9\_subset\_1 (u1\_struct\_0 \\
& (k15\_euclid np\_2)) (k8\_jordan6 X0) (k9\_jordan6 X0) = k2\_tarski \\
& (k18\_pscomp\_1 X0) (k22\_pscomp\_1 X0)) \wedge ((k4\_subset\_1 (u1\_struct\_0 \\
& (k15\_euclid np\_2)) (k8\_jordan6 X0) (k9\_jordan6 X0) = X0) \wedge (\neg r1\_xxreal\_0 \\
& (k18\_euclid (k1\_jordan5c (k8\_jordan6 X0) (k6\_jordan6 (k10\_real\_1 \\
& (k7\_real\_1 (k6\_pscomp\_1 X0) (k8\_pscomp\_1 X0)) np\_2)) (k18\_pscomp\_1 \\
& X0) (k22\_pscomp\_1 X0))) (k18\_euclid (k2\_jordan5c (k9\_jordan6 \\
& X0) (k6\_jordan6 (k10\_real\_1 (k7\_real\_1 (k6\_pscomp\_1 X0) (k8\_pscomp\_1 \\
& X0)) np\_2)) (k22\_pscomp\_1 X0) (k18\_pscomp\_1 X0)))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski X0 X1) \Rightarrow (k3\_xboole\_0 X0 X1 = X0) \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid \\ np\_2)))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid \\ np\_2))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 (k15\_euclid \\ np\_2))) \Rightarrow ((r1\_topreal1 (k15\_euclid np\_2) X1 X2 X0) \Rightarrow (k3\_jordan6 \\ X0 X1 X2 X2 = X0)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid \\ np\_2)))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid \\ np\_2))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 (k15\_euclid \\ np\_2))) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 (k15\_euclid \\ np\_2))) \Rightarrow (r1\_tarski (k4\_jordan6 X0 X1 X2 X3) X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 X0) \Rightarrow (k9\_subset\_1 X0 X1 X2 = k3\_xboole\_0 X1 X2)) \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid \\ np\_2)))) \Rightarrow ((\neg v1\_xboole\_0 (k8\_jordan6 X0)) \wedge (m1\_subset\_1 (k8\_jordan6 \\ X0) (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (m1\_subset\_1 (k22\_pscomp\_1 X0) (u1\_struct\_0 (k15\_euclid np\_2))) \quad (7)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (m1\_subset\_1 (k18\_pscomp\_1 X0) (u1\_struct\_0 (k15\_euclid np\_2))) \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid \\ np\_2)))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid \\ np\_2))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 (k15\_euclid \\ np\_2))) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 (k15\_euclid \\ np\_2))) \Rightarrow (\forall X4.(m1\_subset\_1 X4 (u1\_struct\_0 (k15\_euclid \\ np\_2))) \Rightarrow (k5\_jordan6 X0 X1 X2 X3 X4 = k9\_subset\_1 (u1\_struct\_0 ( \\ k15\_euclid np\_2)) (k4\_jordan6 X0 X1 X2 X3) (k3\_jordan6 X0 X1 X2 X4))))))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.k3\_xboole\_0 X0 X1 = k3\_xboole\_0 X1 X0 \quad (10)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((v1\_topreal2\ X0)\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0 \\ (k15\_euclid\ np\_2))))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0 \\ (k15\_euclid\ np\_2)))\Rightarrow(k4\_jordan6\ (k8\_jordan6\ X0)\ (k18\_pscomp\_1 \\ X0)\ (k22\_pscomp\_1\ X0)\ X1 = k5\_jordan6\ (k8\_jordan6\ X0)\ (k18\_pscomp\_1 \\ X0)\ (k22\_pscomp\_1\ X0)\ X1\ (k22\_pscomp\_1\ X0))) \end{aligned}$$