

t21\_jordan20  
(TMQU7wsfekAFAXnuA39bn3NdxCeadjitB4J)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  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  $r1\_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_jordan6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_jordan5c : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid \\ & \quad np\_2)))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid \\ & \quad np\_2))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 (k15\_euclid \\ & \quad np\_2))) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 (k15\_euclid \\ & \quad np\_2))) \Rightarrow (\forall X4.(m1\_subset\_1 X4 (u1\_struct\_0 (k15\_euclid \\ & \quad np\_2)))) \Rightarrow (((r1\_topreal1 (k15\_euclid np\_2) X1 X2 X0) \wedge (r1\_jordan5c \\ & \quad X0 X1 X2 X3 X4)) \Rightarrow ((X3 = X4) \vee (r1\_topreal1 (k15\_euclid np\_2) X3 X4 \\ & \quad (k5\_jordan6 X0 X1 X2 X3 X4)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 (k15\_euclid \\ & \quad np\_2)))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid \\ & \quad np\_2))) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 (k15\_euclid \\ & \quad np\_2))) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 (k15\_euclid \\ & \quad np\_2)))) \Rightarrow (((r1\_topreal1 (k15\_euclid np\_2) X1 X2 X0) \wedge (X3 \in X0)) \Rightarrow \\ & \quad ((r1\_jordan5c X0 X1 X2 X1 X3) \wedge (r1\_jordan5c X0 X1 X2 X3 X2)))) \end{aligned} \tag{2}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v1\_xboole\_0 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 ( \\ & \quad u1\_struct\_0 (k15\_euclid np\_2)))))) \Rightarrow (\forall X1.(m1\_subset\_1 \\ & \quad X1 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow (\forall X2.(m1\_subset\_1 \\ & \quad X2 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow (\forall X3.(m1\_subset\_1 \\ & \quad X3 (u1\_struct\_0 (k15\_euclid np\_2)))) \Rightarrow (((r1\_topreal1 (k15\_euclid \\ & \quad np\_2) X1 X2 X0) \wedge (X3 \in X0)) \Rightarrow ((X2 = X3) \vee (r1\_topreal1 (k15\_euclid \\ & \quad np\_2) X3 X2 (k5\_jordan6 X0 X1 X2 X3 X2)))))) \end{aligned}$$