

t19_jordan14 (TMdyr- CPERRS82qJy3kPABeSe1MnKku9W13b)

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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 $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $r1_jordan1h : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_jordan2c : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_jordan13 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_jordan2c : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_6 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_topreal1 : \iota \Rightarrow o$ be given. Let $v2_topreal1 : \iota \Rightarrow o$ be given. Let $v1_goboard5 : \iota \Rightarrow o$ be given. Let $v2_goboard5 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_goboard9 : \iota \Rightarrow \iota$ be given. Let $k3_goboard9 : \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_sppol_1 : \iota \Rightarrow o$ be given. Let $v2_sppol_1 : \iota \Rightarrow o$ be given. Let $v1_sprect_2 : \iota \Rightarrow o$ be given. Let $v2_compts_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\neg(X0 \in X1) \wedge ((m1_subset_1 X1 (k1_zfmisc_1 X2)) \wedge (v1_xboole_0 X2)) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(\neg(\neg r1_xboole_0 X0 X1) \wedge (\forall X2.\neg(X2 \in X0) \wedge (X2 \in X1))) \wedge (\neg(\exists X2.(X2 \in X0) \wedge (X2 \in X1)) \wedge (r1_xboole_0 X0 X1)) \quad (3)$$

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.

$$\forall X0.\forall X1.(m1_subset_1 X0 X1)\Rightarrow((v1_xboole_0 X1)\vee (X0 \in X1)) \quad (5)$$

Assume the following.

$$\begin{aligned} &\forall X0.(m2_subset_1 X0 k1_numbers k5_numbers)\Rightarrow(\forall X1. \\ &(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 (k15_euclid X0))))\Rightarrow \\ &(\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ &X0))))\Rightarrow((r2_jordan2c X0 X1 X2)\Rightarrow(r1_tarski X2 (k2_jordan2c X0 X1)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} &\forall X0.((\neg v3_funct_1 X0)\wedge((\neg v1_xboole_0 X0)\wedge((v1_finseq_6 \\ &X0 (u1_struct_0 (k15_euclid np_2))))\wedge((v1_topreal1 X0)\wedge((v2_topreal1 \\ &X0)\wedge((v1_goboard5 X0)\wedge((v2_goboard5 X0)\wedge(m2_finseq_1 X0 (u1_struct_0 \\ &(k15_euclid np_2))))))))))\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ &(k15_euclid np_2))))\Rightarrow((X1 \in k2_goboard9 X0)\Leftrightarrow((\neg X1 \in k3_topreal1 \\ &np_2 X0)\wedge(\neg X1 \in k3_goboard9 X0)))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} &\forall X0.((v1_topreal2 X0)\wedge(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 \\ &(k15_euclid np_2))))))\Rightarrow(\forall X1.(m2_subset_1 X1 k1_numbers \\ &k5_numbers)\Rightarrow((r1_jordan1h X0 X1)\Rightarrow(r1_tarski (k2_jordan2c np_2 \\ &X0) (k2_goboard9 (k1_jordan13 X0 X1)))))) \end{aligned} \quad (8)$$

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.

$$\begin{aligned} &\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge((\neg v1_xboole_0 X1)\wedge \\ &(m1_subset_1 X1 (k1_zfmisc_1 X0))))\Rightarrow(\forall X2.(m2_subset_1 \\ &X2 X0 X1)\Leftrightarrow(m1_subset_1 X2 X1)) \end{aligned} \quad (10)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (11)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1)\wedge(v3_ordinal1 k4_ordinal1) \quad (12)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (13)$$

Assume the following.

$$m1_subset_1 \ k5_numbers \ (k1_zfmisc_1 \ k1_numbers) \quad (14)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v1_xboole_0 \ X0) \wedge (\neg v1_sppol_1 \ X0) \wedge \\ & ((\neg v2_sppol_1 \ X0) \wedge ((v1_topreal2 \ X0) \wedge (m1_subset_1 \ X0 \ (k1_zfmisc_1 \\ & (u1_struct_0 \ (k15_euclid \ np_2)))))))) \wedge (m1_subset_1 \ X1 \ k5_numbers)) \Rightarrow \\ & ((\neg v1_xboole_0 \ (k1_jordan13 \ X0 \ X1)) \wedge ((\neg v3_funct_1 \ (k1_jordan13 \\ & X0 \ X1)) \wedge ((v1_finseq_6 \ (k1_jordan13 \ X0 \ X1) \ (u1_struct_0 \ (k15_euclid \\ & np_2))) \wedge ((v1_topreal1 \ (k1_jordan13 \ X0 \ X1)) \wedge ((v2_topreal1 \ (\\ & k1_jordan13 \ X0 \ X1)) \wedge ((v1_goboard5 \ (k1_jordan13 \ X0 \ X1)) \wedge ((v2_goboard5 \\ & (k1_jordan13 \ X0 \ X1)) \wedge ((v1_sprect_2 \ (k1_jordan13 \ X0 \ X1)) \wedge ((m2_finseq_1 \\ & (k1_jordan13 \ X0 \ X1) \ (u1_struct_0 \ (k15_euclid \ np_2)))))))))) \end{aligned} \quad (15)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m1_subset_1 \ X0 \ (k1_zfmisc_1 \ (u1_struct_0 \ (k15_euclid \\ & np_2)))) \Rightarrow ((v1_topreal2 \ X0) \Rightarrow ((v1_topreal2 \ X0) \wedge ((\neg v1_sppol_1 \\ & X0) \wedge (\neg v2_sppol_1 \ X0)))) \end{aligned} \quad (16)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m1_subset_1 \ X0 \ (k1_zfmisc_1 \ (u1_struct_0 \ (k15_euclid \\ & np_2)))) \Rightarrow ((v1_topreal2 \ X0) \Rightarrow ((\neg v1_xboole_0 \ X0) \wedge (v2_compts_1 \\ & X0 \ (k15_euclid \ np_2)))) \end{aligned} \quad (17)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((v1_topreal2 \ X0) \wedge (m1_subset_1 \ X0 \ (k1_zfmisc_1 \ (u1_struct_0 \\ & (k15_euclid \ np_2)))))) \Rightarrow (\forall X1. (m1_subset_1 \ X1 \ (k1_zfmisc_1 \\ & (u1_struct_0 \ (k15_euclid \ np_2)))) \Rightarrow (\forall X2. (m2_subset_1 \\ & X2 \ k1_numbers \ k5_numbers) \Rightarrow (((r1_jordan1h \ X0 \ X2) \wedge (r2_jordan2c \\ & np_2 \ X0 \ X1)) \Rightarrow (r1_xboole_0 \ X1 \ (k3_topreal1 \ np_2 \ (k1_jordan13 \\ & X0 \ X2)))))) \end{aligned}$$