

t19_jordan21

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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 $k6_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k9_jordan6 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v2_compts_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_jordan6 : \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k17_euclid : \iota \Rightarrow \iota$ be given. Let $k19_euclid : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k18_euclid : \iota \Rightarrow \iota$ be given. Let $k8_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k9_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k7_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k18_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k22_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k14_pscomp_1 : \iota \Rightarrow \iota$ be given. Let $k1_pscomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_pscomp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_pscomp_1 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (\\ & \quad u1_struct_0 (k15_euclid np_2)))))) \Rightarrow (\forall X1. ((v2_compts_1 \\ & \quad X1 (k15_euclid np_2)) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & \quad (k15_euclid np_2)))))) \Rightarrow ((r1_tarski X0 X1) \Rightarrow (r1_xxreal_0 (k6_pscomp_1 \\ & \quad X1) (k6_pscomp_1 X0)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1_xboole_0 X0) \wedge ((v1_topreal2 X0) \wedge (m1_subset_1 \\ & \quad X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))))) \Rightarrow ((r1_tarski \\ & \quad (k9_jordan6 X0) X0) \wedge (r1_tarski (k8_jordan6 X0) X0)) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. (v1_xreal_0 X0) \Rightarrow (\forall X1. (v1_xreal_0 X1) \Rightarrow ((k17_euclid \\ & \quad (k19_euclid X0 X1) = X0) \wedge (k18_euclid (k19_euclid X0 X1) = X1))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (\forall X1.((\neg v1_xboole_0 X1) \wedge ((v2_compts_1 X1 (k15_euclid \\ & np_2)) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ & np_2))))) \Rightarrow ((X0 \in X1) \Rightarrow ((r1_xxreal_0 (k6_pscomp_1 X1) (k17_euclid \\ & X0)) \wedge ((r1_xxreal_0 (k17_euclid X0) (k8_pscomp_1 X1)) \wedge ((r1_xxreal_0 \\ & (k9_pscomp_1 X1) (k18_euclid X0)) \wedge (r1_xxreal_0 (k18_euclid X0) \\ & (k7_pscomp_1 X1))))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X0)) \Rightarrow (X0 = X1)) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge ((v2_compts_1 X0 (k15_euclid np_2)) \wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2))))) \Rightarrow \\ & ((v1_topreal2 X0) \Rightarrow ((k18_pscomp_1 X0 \in k9_jordan6 X0) \wedge ((k22_pscomp_1 \\ & X0 \in k9_jordan6 X0) \wedge ((k18_pscomp_1 X0 \in k8_jordan6 X0) \wedge (k22_pscomp_1 \\ & X0 \in k8_jordan6 X0)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_topreal2 X0) \wedge (m1_subset_1 \\ & X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2))))) \Rightarrow ((\neg v1_xboole_0 \\ & (k9_jordan6 X0)) \wedge (v2_compts_1 (k9_jordan6 X0) (k15_euclid np_2)))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (m1_subset_1 (k9_pscomp_1 X0) k1_numbers) \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ & np_2)))) \Rightarrow ((\neg v1_xboole_0 (k9_jordan6 X0)) \wedge (m1_subset_1 (k9_jordan6 \\ & X0) (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2))))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (m1_subset_1 (k6_pscomp_1 X0) k1_numbers) \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid \\ & np_2)))) \Rightarrow (m1_subset_1 (k18_pscomp_1 X0) (u1_struct_0 (k15_euclid \\ & np_2))) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (m1_subset_1 (k14_pscomp_1 X0) (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \quad (12)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (k18_pscomp_1 X0 = k19_euclid (k6_pscomp_1 X0) (k1_pscomp_1 (k1_pre_topc (k15_euclid np_2) (k14_pscomp_1 X0)) (k3_pscomp_1 (k15_euclid np_2) k5_pscomp_1 (k14_pscomp_1 X0)))) \quad (13)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (k9_pscomp_1 X0 = k1_pscomp_1 (k1_pre_topc (k15_euclid np_2) X0) (k3_pscomp_1 (k15_euclid np_2) k5_pscomp_1 X0)) \quad (14)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xxreal_0 X0) \quad (15)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (16)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow ((v1_topreal2 X0) \Rightarrow ((\neg v1_xboole_0 X0) \wedge (v2_compts_1 X0 (k15_euclid np_2)))) \quad (17)$$

Theorem 1

$$\forall X0.((v1_topreal2 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \Rightarrow (k6_pscomp_1 X0 = k6_pscomp_1 (k9_jordan6 X0)))$$