

t30_jordan2b

(TMV1fLFisJG589UXBvPrXVgcUeBHUBnsVy3)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $np_1 : \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_pscomp_1 : \iota$ be given. Let $k5_pscomp_1 : \iota$ be given. Let $k17_euclid : \iota \Rightarrow \iota$ be given. Let $k18_euclid : \iota \Rightarrow \iota$ 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 $k5_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v3_valued_0 : \iota \Rightarrow o$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v5_rltopsp1 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $l1_rltopsp1 : \iota \Rightarrow o$ be given. Let $l1_rlvect_1 : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & ((k7_partfun1 k1_numbers X0 np_1 = k17_euclid X0) \wedge (k7_partfun1 \\ & \quad k1_numbers X0 np_2 = k18_euclid X0)) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \end{aligned} \tag{2}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((\neg v1_xboole_0 X0) \wedge \\ & (((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1)))))) \wedge (m1_subset_1 X3 X0))) \Rightarrow (k3_funct_2 X0 \\ & X1 X2 X3 = k1_funct_1 X2 X3) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v3_valued_0 X0))) \Rightarrow (k1_seq_1 X0 X1 = k1_funct_1 X0 X1) \quad (5)$$

Assume the following.

$$v6_membered k4_ordinal1 \quad (6)$$

Assume the following.

$$\forall X0. (v7_ordinal1 X0) \Rightarrow ((\neg v2_struct_0 (k15_euclid X0)) \wedge (v5_rltopsp1 (k15_euclid X0))) \quad (7)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_xboole_0 (u1_struct_0 X0)) \quad (8)$$

Assume the following.

$$\forall X0. (l1_rltopsp1 X0) \Rightarrow ((l1_rlvect_1 X0) \wedge (l1_pre_topc X0)) \quad (9)$$

Assume the following.

$$\forall X0. (l1_pre_topc X0) \Rightarrow (l1_struct_0 X0) \quad (10)$$

Assume the following.

$$\begin{aligned} & (v1_funct_1 k5_pscomp_1) \wedge ((v1_funct_2 k5_pscomp_1 (u1_struct_0 \\ & (k15_euclid np_2)) k1_numbers) \wedge (m1_subset_1 k5_pscomp_1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (u1_struct_0 (k15_euclid np_2)) k1_numbers)))) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} & (v1_funct_1 k4_pscomp_1) \wedge ((v1_funct_2 k4_pscomp_1 (u1_struct_0 \\ & (k15_euclid np_2)) k1_numbers) \wedge (m1_subset_1 k4_pscomp_1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (u1_struct_0 (k15_euclid np_2)) k1_numbers)))) \end{aligned} \quad (12)$$

Assume the following.

$$\forall X0. (v7_ordinal1 X0) \Rightarrow ((v5_rltopsp1 (k15_euclid X0)) \wedge (l1_rltopsp1 (k15_euclid X0))) \quad (13)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 (u1_struct_0 (k15_euclid \\ np_2)) k1_numbers) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\ (u1_struct_0 (k15_euclid np_2)) k1_numbers)))))) \Rightarrow ((X0 = k5_pscomp_1) \Leftrightarrow \\ (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ (k1_seq_1 X0 X1 = k18_euclid X1))) \end{aligned} \quad (14)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 (u1_struct_0 (k15_euclid \\ np_2)) k1_numbers) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\ (u1_struct_0 (k15_euclid np_2)) k1_numbers)))))) \Rightarrow ((X0 = k4_pscomp_1) \Leftrightarrow \\ (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ (k1_seq_1 X0 X1 = k17_euclid X1))) \end{aligned} \quad (15)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v5_relat_1 X0 k1_numbers)) \Rightarrow ((v1_relat_1 X0) \wedge (v3_valued_0 X0)) \quad (16)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow ((v4_relat_1 X2 X0) \wedge (v5_relat_1 X2 X1)) \quad (17)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (v1_relat_1 X2) \quad (18)$$

Assume the following.

$$\forall X0. (v6_membered X0) \Rightarrow (\forall X1. (m1_subset_1 X1 X0) \Rightarrow (v7_ordinal1 X1)) \quad (19)$$

Theorem 1

$$\begin{aligned} \forall X0. (m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ ((k7_partfun1 k1_numbers X0 np_1 = k3_funct_2 (u1_struct_0 (k15_euclid \\ np_2)) k1_numbers k4_pscomp_1 X0) \wedge (k7_partfun1 k1_numbers X0 \\ np_2 = k3_funct_2 (u1_struct_0 (k15_euclid np_2)) k1_numbers \\ k5_pscomp_1 X0)) \end{aligned}$$