

t4_jordan22 (TMYKP- TiKGuam1PzaiFEemtPfKekyjuV7wmG)

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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 $v2_compts_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_setfam_1 : \iota \Rightarrow \iota$ be given. Let $k2_jordan19 : \iota \Rightarrow \iota$ be given. Let $v2_connsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ 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 $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ 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 $k3_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_jordan6 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_sppol_1 : \iota \Rightarrow o$ be given. Let $v2_sppol_1 : \iota \Rightarrow o$ be given. Let $k1_jordan9 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_sprect_2 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_2) \wedge (m2_subset_1 \ np_2 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_2 \ k5_numbers) \wedge (m1_subset_1 \ np_2 \ k1_numbers)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 \ X0) \wedge ((\neg v1_xboole_0 \ X1) \wedge \\ & (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ & \quad X2 \ X0 \ X1) \Leftrightarrow (m1_subset_1 \ X2 \ X1)) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 \ X1 \ X0) \Leftrightarrow (m1_finseq_1 \ X1 \ X0) \quad (3)$$

Assume the following.

$$\forall X0. k9_setfam_1 \ X0 = k1_zfmisc_1 \ X0 \quad (4)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((\neg v1_xboole_0 X0) \wedge \\ & (((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1)))))) \wedge (m1_subset_1 X3 X0))) \Rightarrow (k3_funct_2 X0 \\ & X1 X2 X3 = k1_funct_1 X2 X3) \end{aligned} \quad (6)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge ((\neg v3_funct_1 X0) \wedge ((v1_finseq_6 \\ & X0 (u1_struct_0 (k15_euclid np_2))) \wedge ((v1_topreal1 X0) \wedge ((v2_topreal1 \\ & X0) \wedge ((v1_goboard5 X0) \wedge ((v2_goboard5 X0) \wedge (m1_finseq_1 X0 (u1_struct_0 \\ & (k15_euclid np_2)))))))))) \Rightarrow (v1_topreal2 (k3_topreal1 np_2 \\ & X0)) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_topreal2 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 \\ & (k15_euclid np_2)))))) \Rightarrow ((\neg v1_xboole_0 (k9_jordan6 X0)) \wedge (v2_connsp_1 \\ & (k9_jordan6 X0) (k15_euclid np_2))) \end{aligned} \quad (9)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_topreal2 X0) \wedge (m1_subset_1 \\ & X0 (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))))) \Rightarrow ((\neg v1_xboole_0 \\ & (k9_jordan6 X0)) \wedge (v2_compts_1 (k9_jordan6 X0) (k15_euclid np_2))) \end{aligned} \quad (11)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v7_ordinal1 X0) \wedge (m1_finseq_1 X1 (u1_struct_0 \\ & (k15_euclid X0)))) \Rightarrow (m1_subset_1 (k3_topreal1 X0 X1) (k1_zfmisc_1 \\ & (u1_struct_0 (k15_euclid X0)))) \end{aligned} \quad (13)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_topreal2\ X0)\wedge(m1_subset_1\ X0\ (k1_zfmisc_1\ (u1_struct_0 \\ (k15_euclid\ np_2))))))\Rightarrow((v1_funct_1\ (k2_jordan19\ X0))\wedge((v1_funct_2 \\ (k2_jordan19\ X0)\ k5_numbers\ (k9_setfam_1\ (u1_struct_0\ (k15_euclid \\ np_2))))\wedge(m1_subset_1\ (k2_jordan19\ X0)\ (k1_zfmisc_1\ (k2_zfmisc_1 \\ k5_numbers\ (k9_setfam_1\ (u1_struct_0\ (k15_euclid\ np_2)))))))))) \end{aligned} \quad (14)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(((\neg v1_xboole_0\ X0)\wedge((v2_compts_1\ X0\ (\\ k15_euclid\ np_2))\wedge((\neg v1_sppol_1\ X0)\wedge((\neg v2_sppol_1\ X0)\wedge(m1_subset_1 \\ X0\ (k1_zfmisc_1\ (u1_struct_0\ (k15_euclid\ np_2))))))))\wedge(v7_ordinal1 \\ X1))\Rightarrow((\neg v1_xboole_0\ (k1_jordan9\ X0\ X1))\wedge((\neg v3_funct_1\ (k1_jordan9 \\ X0\ X1))\wedge((v1_finseq_6\ (k1_jordan9\ X0\ X1)\ (u1_struct_0\ (k15_euclid \\ np_2))))\wedge((v1_topreal1\ (k1_jordan9\ X0\ X1))\wedge((v2_topreal1\ (k1_jordan9 \\ X0\ X1))\wedge((v1_goboard5\ (k1_jordan9\ X0\ X1))\wedge((v2_goboard5\ (k1_jordan9 \\ X0\ X1))\wedge((v1_sprect_2\ (k1_jordan9\ X0\ X1))\wedge(m2_finseq_1\ (k1_jordan9 \\ X0\ X1)\ (u1_struct_0\ (k15_euclid\ np_2)))))))))) \end{aligned} \quad (15)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_topreal2\ X0)\wedge(m1_subset_1\ X0\ (k1_zfmisc_1\ (u1_struct_0 \\ (k15_euclid\ np_2))))))\Rightarrow(\forall X1.((v1_funct_1\ X1)\wedge((v1_funct_2 \\ X1\ k5_numbers\ (k9_setfam_1\ (u1_struct_0\ (k15_euclid\ np_2))))\wedge \\ (m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ k5_numbers\ (k9_setfam_1 \\ (u1_struct_0\ (k15_euclid\ np_2))))))))))\Rightarrow((X1 = k2_jordan19\ X0)\Leftrightarrow \\ (\forall X2.(m1_subset_1\ X2\ k5_numbers)\Rightarrow(k1_funct_1\ X1\ X2 = k9_jordan6 \\ (k3_topreal1\ np_2\ (k1_jordan9\ X0\ X2)))))) \end{aligned} \quad (16)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k4_ordinal1)\Rightarrow(v7_ordinal1\ X0) \quad (17)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ (k1_zfmisc_1\ (u1_struct_0\ (k15_euclid \\ np_2))))\Rightarrow((v1_xboole_0\ X0)\Rightarrow(v2_sppol_1\ X0)) \quad (18)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ (k1_zfmisc_1\ (u1_struct_0\ (k15_euclid \\ np_2))))\Rightarrow((v1_topreal2\ X0)\Rightarrow((v1_topreal2\ X0)\wedge((\neg v1_sppol_1 \\ X0)\wedge(\neg v2_sppol_1\ X0)))) \quad (19)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ (k1_zfmisc_1\ (u1_struct_0\ (k15_euclid \\ np_2))))\Rightarrow((v1_topreal2\ X0)\Rightarrow((\neg v1_xboole_0\ X0)\wedge(v2_compts_1 \\ X0\ (k15_euclid\ np_2)))) \quad (20)$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_topreal2\ X0)\wedge(m1_subset_1\ X0\ (k1_zfmisc_1\ (u1_struct_0 \\ (k15_euclid\ np_2))))))\Rightarrow(\forall X1.(m2_subset_1\ X1\ k1_numbers \\ k5_numbers)\Rightarrow((v2_compts_1\ (k3_funct_2\ k5_numbers\ (k9_setfam_1 \\ (u1_struct_0\ (k15_euclid\ np_2))))\ (k2_jordan19\ X0\ X1)\ (k15_euclid \\ np_2))\wedge(v2_connsp_1\ (k3_funct_2\ k5_numbers\ (k9_setfam_1\ (u1_struct_0 \\ (k15_euclid\ np_2))))\ (k2_jordan19\ X0\ X1)\ (k15_euclid\ np_2)))))) \end{aligned}$$