

t25_jordan5a
 (TMEhcytDs3LCVr5XKDJpycECNs1sdSSVi6N)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_topmetr : \iota$ be given. Let $v1_rcomp_1 : \iota \Rightarrow o$ be given. Let $v2_compts_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_membered : \iota \Rightarrow o$ be given. Let $k1_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xxreal_2 : \iota \Rightarrow \iota$ be given. Let $k1_xxreal_2 : \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_compts_1 : \iota \Rightarrow o$ be given. Let $k4_topmetr : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_rcomp_1 : \iota \Rightarrow o$ be given. Let $k1_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_weierstr : \iota \Rightarrow \iota$ be given. Let $v5_xxreal_2 : \iota \Rightarrow o$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $v3_xxreal_2 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v4_xxreal_2 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (((v2_compts_1 \\ & X1 X0) \wedge ((r1_tarski X2 X1) \wedge (v4_pre_topc X2 X0))) \Rightarrow (v2_compts_1 \\ & X2 X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(v2_membered X0) \Rightarrow (r1_tarski X0 (k1_xxreal_1 (k2_xxreal_2 X0) (k1_xxreal_2 X0))) \quad (2)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \Rightarrow (v1_compts_1 (k4_topmetr X0 X1)))) \quad (3)$$

Assume the following.

$$\forall X0.(v2_membered X0) \Rightarrow ((\neg v1_xboole_0 X0) \Leftrightarrow (r1_xxreal_0 (k2_xxreal_2 X0) (k1_xxreal_2 X0))) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_pre_topc\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1 \\ (u1_struct_0\ X0))) \Rightarrow (((X1 = k1_xboole_0) \Rightarrow ((v2_compts_1\ X1\ X0) \Leftrightarrow \\ (v1_compts_1\ (k1_pre_topc\ X0\ X1)))) \wedge ((v2_pre_topc\ X0) \Rightarrow ((X1 = \\ k1_xboole_0) \vee ((v2_compts_1\ X1\ X0) \Leftrightarrow (v1_compts_1\ (k1_pre_topc \\ X0\ X1))))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1\ X0\ (k1_zfmisc_1\ k1_numbers)) \Rightarrow (\forall X1. \\ (m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0\ k3_topmetr))) \Rightarrow ((X0 = \\ X1) \Rightarrow ((v2_rcomp_1\ X0) \Leftrightarrow (v4_pre_topc\ X1\ k3_topmetr)))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xreal_0\ X0) \Rightarrow (\forall X1.(v1_xreal_0\ X1) \Rightarrow ((r1_xxreal_0 \\ X0\ X1) \Rightarrow (\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ (u1_struct_0 \\ k3_topmetr)))) \Rightarrow ((X2 = k1_rcomp_1\ X0\ X1) \Rightarrow (k4_topmetr\ X0\ X1 = k1_pre_topc \\ k3_topmetr\ X2)))))) \end{aligned} \quad (7)$$

Assume the following.

$$u1_struct_0\ k3_topmetr = k1_numbers \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1\ X0\ (k1_zfmisc_1\ (u1_struct_0\ k3_topmetr))) \Rightarrow \\ ((v2_compts_1\ X0\ k3_topmetr) \Rightarrow (v1_rcomp_1\ (k1_weierstr\ X0))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1\ X0\ (k1_zfmisc_1\ k1_numbers)) \Rightarrow ((v1_rcomp_1 \\ X0) \Rightarrow (v5_xxreal_2\ X0)) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v1_xreal_0\ X0) \wedge (v1_xreal_0\ X1)) \Rightarrow (k1_rcomp_1 \\ X0\ X1 = k1_xxreal_1\ X0\ X1) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} \forall X0.((v3_membered\ X0) \wedge ((\neg v1_xboole_0\ X0) \wedge (v3_xxreal_2 \\ X0))) \Rightarrow ((v1_xxreal_0\ (k2_xxreal_2\ X0)) \wedge (v1_xreal_0\ (k2_xxreal_2 \\ X0))) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} \forall X0.((v3_membered\ X0) \wedge ((\neg v1_xboole_0\ X0) \wedge (v4_xxreal_2 \\ X0))) \Rightarrow ((v1_xxreal_0\ (k1_xxreal_2\ X0)) \wedge (v1_xreal_0\ (k1_xxreal_2 \\ X0))) \end{aligned} \quad (13)$$

Assume the following.

$$(v2_pre_topc\ k3_topmetr)\wedge(l1_pre_topc\ k3_topmetr) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0\ X0)\wedge(v1_xreal_0\ X1))\Rightarrow(m1_subset_1\ (k1_rcomp_1\ X0\ X1)\ (k1_zfmisc_1\ k1_numbers)) \quad (15)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ (k1_zfmisc_1\ (u1_struct_0\ k3_topmetr)))\Rightarrow(k1_weierstr\ X0 = X0) \quad (16)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ (k1_zfmisc_1\ k1_numbers))\Rightarrow(v3_membered\ X0) \quad (17)$$

Assume the following.

$$\forall X0.((v2_membered\ X0)\wedge(v5_xxreal_2\ X0))\Rightarrow((v2_membered\ X0)\wedge((v3_xxreal_2\ X0)\wedge(v4_xxreal_2\ X0))) \quad (18)$$

Assume the following.

$$\forall X0.(v3_membered\ X0)\Rightarrow(v2_membered\ X0) \quad (19)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ (k1_zfmisc_1\ k1_numbers))\Rightarrow((v1_rcomp_1\ X0)\Rightarrow(v2_rcomp_1\ X0)) \quad (20)$$

Assume the following.

$$\forall X0.(l1_pre_topc\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0\ X0)))\Rightarrow((v1_xboole_0\ X1)\Rightarrow(v2_compts_1\ X1\ X0))) \quad (21)$$

Theorem 1

$$\forall X0.(m1_subset_1\ X0\ (k1_zfmisc_1\ k1_numbers))\Rightarrow(\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0\ k3_topmetr)))\Rightarrow((X0 = X1)\Rightarrow((v1_rcomp_1\ X0)\Leftrightarrow(v2_compts_1\ X1\ k3_topmetr))))$$