

t27_mfold_2

(TMVnkhdz1DJaK78Q2ZafZFh2j4WtBgK1iPw)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. 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 $k4_struct_0 : \iota \Rightarrow \iota$ 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 $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_tops_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_mfold_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_rlvect_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $k10_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k2_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_rlvect_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_vectsp_1 : \iota$ be given. Let $v1_matrix_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_matrtop1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\
 & (k15_euclid X0))) \Rightarrow (\neg(X1 \neq k4_struct_0 (k15_euclid X0)) \wedge (\forall X2. \\
 & ((v1_rlvect_3 X2 (k15_euclid X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\
 & (u1_struct_0 (k15_euclid X0)))))) \Rightarrow (\neg(k1_card_1 X2 = k10_binop_2 \\
 & X0 np_1) \wedge (k2_struct_0 (k1_rlvect_3 (k15_euclid X0) X2) = k2_mfold_2 \\
 & X0 X1 (k4_struct_0 (k15_euclid X0))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.((v1_rlvect_3 X1 (k15_euclid \\
 & X0)) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 (k15_euclid X0)))))) \Rightarrow \\
 & (\forall X2.((v1_rlvect_3 X2 (k15_euclid X0)) \wedge (m1_subset_1 X2 \\
 & (k1_zfmisc_1 (u1_struct_0 (k15_euclid X0)))))) \Rightarrow (\neg(k1_card_1 \\
 & X1 = k1_card_1 X2) \wedge (\forall X3.(m1_matrix_1 X3 (u1_struct_0 k2_vectsp_1) \\
 & X0 X0) \Rightarrow (\neg(v1_matrix_6 X3 X0 k2_vectsp_1) \wedge (k7_relset_1 (u1_struct_0 \\
 & (k15_euclid X0)) (u1_struct_0 (k15_euclid X0)) (k3_matrtop1 X0 \\
 & X0 X3) (k2_struct_0 (k1_rlvect_3 (k15_euclid X0) X1)) = k2_struct_0 \\
 & (k1_rlvect_3 (k15_euclid X0) X2))))))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v7_ordinal1\ X0)\wedge((v1_matrix_6\ X1\ X0\ k2_vectsp_1)\wedge \\ & (m1_matrix_1\ X1\ (u1_struct_0\ k2_vectsp_1)\ X0\ X0)))\Rightarrow((v1_funct_1 \\ & (k3_matrtop1\ X0\ X0\ X1))\wedge((v1_funct_2\ (k3_matrtop1\ X0\ X0\ X1)\ (u1_struct_0 \\ & (k15_euclid\ X0))\ (u1_struct_0\ (k15_euclid\ X0)))\wedge(v3_tops_2\ (\\ & k3_matrtop1\ X0\ X0\ X1)\ (k15_euclid\ X0)\ (k15_euclid\ X0)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v7_ordinal1\ X0)\wedge((v7_ordinal1 \\ & X1)\wedge(m1_matrix_1\ X2\ (u1_struct_0\ k2_vectsp_1)\ X0\ X1)))\Rightarrow((v1_funct_1 \\ & (k3_matrtop1\ X0\ X1\ X2))\wedge((v1_funct_2\ (k3_matrtop1\ X0\ X1\ X2)\ (u1_struct_0 \\ & (k15_euclid\ X0))\ (u1_struct_0\ (k15_euclid\ X1)))\wedge(m1_subset_1 \\ & (k3_matrtop1\ X0\ X1\ X2)\ (k1_zfmisc_1\ (k2_zfmisc_1\ (u1_struct_0 \\ & (k15_euclid\ X0))\ (u1_struct_0\ (k15_euclid\ X1)))))) \end{aligned} \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v7_ordinal1\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ (u1_struct_0 \\ & (k15_euclid\ X0)))\Rightarrow(\forall X2.(m1_subset_1\ X2\ (u1_struct_0\ (\\ & k15_euclid\ X0)))\Rightarrow(\neg(X1\neq k4_struct_0\ (k15_euclid\ X0))\wedge((X2\neq k4_struct_0 \\ & (k15_euclid\ X0))\wedge(\forall X3.((v1_funct_1\ X3)\wedge((v1_funct_2 \\ & X3\ (u1_struct_0\ (k15_euclid\ X0))\ (u1_struct_0\ (k15_euclid\ X0)))\wedge \\ & (m1_subset_1\ X3\ (k1_zfmisc_1\ (k2_zfmisc_1\ (u1_struct_0\ (k15_euclid \\ & X0))\ (u1_struct_0\ (k15_euclid\ X0))))))\Rightarrow(\neg(v3_tops_2\ X3\ (k15_euclid \\ & X0)\ (k15_euclid\ X0))\wedge(k7_relset_1\ (u1_struct_0\ (k15_euclid\ X0)) \\ & (u1_struct_0\ (k15_euclid\ X0))\ X3\ (k2_mfold_2\ X0\ X1\ (k4_struct_0 \\ & (k15_euclid\ X0))) = k2_mfold_2\ X0\ X2\ (k4_struct_0\ (k15_euclid\ X0)))))) \end{aligned}$$