

t39_mycielsk
(TMbE7nLFnqqYUxCfVY6uMFv8Zi4xvjfBixf)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $m1_mycielsk : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $u1_orders_2 : \iota \Rightarrow \iota$ be given. Let $k6_mycielsk : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $v1_orders_2 : \iota \Rightarrow o$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $np_1 : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \\ & (\neg(\neg r1_tarski X5 X0) \wedge ((\neg r1_tarski X5 X1) \wedge ((\neg r1_tarski X5 X2) \wedge \\ & ((\neg r1_tarski X5 X3) \wedge (\neg r1_tarski X5 X4)))))) \Rightarrow (r1_tarski X5 (k2_xboole_0 \\ & (k2_xboole_0 (k2_xboole_0 (k2_xboole_0 X0 X1) X2) X3) X4)) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (r1_relset_1 X0 X1 X2 X2) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow ((r1_relset_1 X0 X1 X2 X3) \Leftrightarrow (r1_tarski X2 X3)) \quad (3)$$

Assume the following.

$$\forall X0. (l1_orders_2 X0) \Rightarrow (m1_subset_1 (u1_orders_2 X0) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))) \quad (4)$$

Assume the following.

$$\forall X0. (v7_ordinal1 X0) \Rightarrow (\forall X1. (m1_mycielsk X1 X0) \Rightarrow ((v1_orders_2 X1) \wedge (l1_orders_2 X1))) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v7_ordinal1 X0) \wedge (m1_mycielsk X1 X0)) \Rightarrow \\ & (m1_mycielsk (k6_mycielsk X0 X1) (k2_xcmplx_0 (k3_xcmplx_0 np_2 \\ & \quad X0) np_1)) \end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned} & \forall X0. (v7_ordinal1 X0) \Rightarrow (\forall X1. (m1_mycielsk X1 X0) \Rightarrow \\ & (\forall X2. (m1_mycielsk X2 (k2_xcmplx_0 (k3_xcmplx_0 np_2 X0) \\ & np_1)) \Rightarrow ((X2 = k6_mycielsk X0 X1) \Leftrightarrow (u1_orders_2 X2 = k2_xboole_0 \\ & (k2_xboole_0 (k2_xboole_0 (k2_xboole_0 (u1_orders_2 X1) (ReplSep2 \\ & \quad (toset (\lambda X3 : \iota. m1_subset_1 X3 k5_numbers)) (\lambda X3 : \iota. \\ & \quad \quad toset (\lambda X4 : \iota. m1_subset_1 X4 k5_numbers)) (\lambda X3 : \iota. \lambda X4 : \iota. \\ & \quad \quad \quad \iota.k4_tarski X3 X4 \in u1_orders_2 X1) (\lambda X3 : \iota. \lambda X4 : \iota. \\ & \quad \quad \quad k4_tarski X3 (k2_xcmplx_0 X4 X0)))) (ReplSep2 (toset (\lambda X3 : \iota. \\ & \quad m1_subset_1 X3 k5_numbers)) (\lambda X3 : \iota. toset (\lambda X4 : \iota. m1_subset_1 \\ & \quad X4 k5_numbers)) (\lambda X3 : \iota. \lambda X4 : \iota. k4_tarski X3 X4 \in u1_orders_2 \\ & \quad X1) (\lambda X3 : \iota. \lambda X4 : \iota. k4_tarski (k2_xcmplx_0 X3 X0) X4))) \\ & \quad (k2_zfmisc_1 (k1_tarski (k3_xcmplx_0 np_2 X0)) (k6_subset_1 \\ & \quad (k3_xcmplx_0 np_2 X0) X0))) (k2_zfmisc_1 (k6_subset_1 (k3_xcmplx_0 \\ & \quad np_2 X0) X0) (k1_tarski (k3_xcmplx_0 np_2 X0)))))) \end{aligned} \tag{7}$$

Theorem 1

$$\begin{aligned} & \forall X0. (v7_ordinal1 X0) \Rightarrow (\forall X1. (m1_mycielsk X1 X0) \Rightarrow \\ & (r1_relset_1 (u1_struct_0 X1) (u1_struct_0 X1) (u1_orders_2 X1) \\ & \quad (u1_orders_2 (k6_mycielsk X0 X1)))) \end{aligned}$$