

t38_flang_1 (TMWf-
BSP4LQMdwRezZQQzfXkcCSWTQPzWafC)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k3_catalan2 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.((r1_tarski\ X0\ X1)\wedge(r1_tarski\ X2\ X1))\Rightarrow(r1_tarski\ (k2_xboole_0\ X0\ X2)\ X1) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.r1_tarski\ X0\ (k2_xboole_0\ X0\ X1) \quad (2)$$

Assume the following.

$$\begin{aligned} &\forall X0.\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ (k3_catalan2 \\ &\ X0)))\Rightarrow(\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ (k3_catalan2 \\ &\ X0)))\Rightarrow(\forall X3.(v7_ordinal1\ X3)\Rightarrow((r1_tarski\ X1\ X2)\Rightarrow(r1_tarski \\ &\ (k7_flang_1\ X0\ X1\ X3)\ (k7_flang_1\ X0\ X2\ X3)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_subset_1\ X1\ (k1_zfmisc_1\ X0))\wedge(m1_subset_1\ X2\ (k1_zfmisc_1\ X0)))\Rightarrow(k4_subset_1\ X0\ X1\ X2 = k2_xboole_0\ X1\ X2) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_subset_1\ X1\ (k1_zfmisc_1\ (k3_catalan2\ X0)))\wedge(v7_ordinal1\ X2))\Rightarrow(m1_subset_1\ (k7_flang_1\ X0\ X1\ X2)\ (k1_zfmisc_1\ (k3_catalan2\ X0))) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_subset_1\ X1\ (k1_zfmisc_1\ X0))\wedge(m1_subset_1\ X2\ (k1_zfmisc_1\ X0)))\Rightarrow(m1_subset_1\ (k4_subset_1\ X0\ X1\ X2)\ (k1_zfmisc_1\ X0)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.k2_xboole_0 X0 X1 = k2_xboole_0 X1 X0 \quad (7)$$

Theorem 1

$$\begin{aligned} & \forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 \\ & X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k3_catalan2 \\ & X0))) \Rightarrow (\forall X3.(v7_ordinal1 X3) \Rightarrow (r1_tarski (k4_subset_1 \\ & (k3_catalan2 X0) (k7_flang_1 X0 X1 X3) (k7_flang_1 X0 X2 X3)) (k7_flang_1 \\ & X0 (k4_subset_1 (k3_catalan2 X0) X1 X2 X3)))) \end{aligned}$$