

t31_flang_1
(TMFA4XLcQTCzfho8wBZkPAepJZj4dxqtfAC)

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 $k2_flang_1 : \iota \Rightarrow \iota$ be given. Let $k7_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k1_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ 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 $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\neg(X0 \neq k6_numbers) \wedge (\forall X1. (v7_ordinal1 X1) \Rightarrow (X0 \neq k1_nat_1 X1 np_1))) \quad (1)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((X0 \in X1) \Leftrightarrow (\neg r1_xxreal_0 X1 X0))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 X0))) \Rightarrow (\forall X2.(v7_ordinal1 X2) \Rightarrow (k7_flang_1 X0 X1 (k2_xcmplx_0 X2 np_1) = k6_flang_1 X0 (k7_flang_1 X0 X1 X2) X1)) \quad (3)$$

Assume the following.

$$m1_subset_1 k1_xboole_0 k4_ordinal1 \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k3_catalan2 X0))) \Rightarrow ((k2_flang_1 X0 \in k6_flang_1 X0 X1 X2) \Leftrightarrow ((k2_flang_1 X0 \in X1) \wedge (k2_flang_1 X0 \in X2)))) \quad (5)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \end{aligned} \quad (6)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (7)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v7_ordinal1 \ X0) \wedge (m1_subset_1 \ X1 \ k5_numbers)) \Rightarrow \\ & (k1_nat_1 \ X0 \ X1 = k2_xcmplx_0 \ X0 \ X1) \end{aligned} \quad (9)$$

Assume the following.

$$v1_xboole_0 \ k1_xboole_0 \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((m1_subset_1 \ X1 \ (k1_zfmisc_1 \\ & (k3_catalan2 \ X0))) \wedge (v7_ordinal1 \ X2)) \Rightarrow (m1_subset_1 \ (k7_flang_1 \\ & X0 \ X1 \ X2) \ (k1_zfmisc_1 \ (k3_catalan2 \ X0))) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (X2 = k4_xboole_0 \ X0 \ X1) \Leftrightarrow (\forall X3. \\ & (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (\neg X3 \in X1))) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (r1_tarski \ X0 \ X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow \\ & (X2 \in X1)) \end{aligned} \quad (13)$$

Assume the following.

$$\forall X0. (v1_xboole_0 \ X0) \Leftrightarrow (\forall X1. \neg X1 \in X0) \quad (14)$$

Assume the following.

$$\forall X0. (m1_subset_1 \ X0 \ k4_ordinal1) \Rightarrow (v7_ordinal1 \ X0) \quad (15)$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ (k3_catalan2 \\ & X0))) \Rightarrow (\forall X2. (v7_ordinal1 \ X2) \Rightarrow ((k2_flang_1 \ X0 \in k7_flang_1 \\ & X0 \ X1 \ X2) \Rightarrow ((r1_xxreal_0 \ X2 \ k6_numbers) \vee (k2_flang_1 \ X0 \in X1)))) \end{aligned}$$