

t15_partit1

(TMWFw7DuNYwaNZRn5q2djVfbgrrJGXiM8Rh)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_eqrel_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_setfam_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_partit1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_setfam_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (2)$$

Assume the following.

$$\forall X0.k4_xboole_0 k1_xboole_0 X0 = k1_xboole_0 \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.r1_tarski (k3_xboole_0 X0 X1) X0 \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.k6_subset_1 X0 X1 = k4_xboole_0 X0 X1 \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.m1_subset_1 (k6_subset_1 X0 X1) (k1_zfmisc_1 X0) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0)\wedge((m1_eqrel_1 X1 X0)\wedge(m1_eqrel_1 X2 X0)))\Rightarrow(m1_eqrel_1 (k2_partit1 X0 X1 X2) X0) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k3_setfam_1 X0 X1)\Leftrightarrow(\forall X3.(X3 \in X2)\Leftrightarrow(\exists X4.\exists X5.(X4 \in X0)\wedge((X5 \in X1)\wedge(X3 = k3_xboole_0 X4 X5)))) \quad (9)$$

Assume the following.

$$\forall X0.(\neg v1_xboole_0 X0)\Rightarrow(\forall X1.(m1_eqrel_1 X1 X0)\Rightarrow(\forall X2.(m1_eqrel_1 X2 X0)\Rightarrow(k2_partit1 X0 X1 X2 = k6_subset_1 (k3_setfam_1 X1 X2) (k1_tarski k1_xboole_0)))) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(r1_setfam_1 X0 X1)\Leftrightarrow(\forall X2.\neg(X2 \in X0)\wedge(\forall X3.\neg(X3 \in X1)\wedge(r1_tarski X2 X3))) \quad (11)$$

Assume the following.

$$\forall X0.(\neg v1_xboole_0 X0)\Rightarrow(\forall X1.(m1_eqrel_1 X1 X0)\Rightarrow(\neg v1_xboole_0 X1)) \quad (12)$$

Theorem 1

$$\forall X0.(\neg v1_xboole_0 X0)\Rightarrow(\forall X1.(m1_eqrel_1 X1 X0)\Rightarrow(\forall X2.(m1_eqrel_1 X2 X0)\Rightarrow(r1_setfam_1 (k2_partit1 X0 X1 X2) X1)))$$