

t8\_tex\_1

(TMcc4Tp2onBwxgMGoqNZ8rmafyxkQ9X8XfB)

October 27, 2020

Let  $v13\_struct\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_1 : \iota$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $v3\_tdlat\_3 : \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $u1\_pre\_topc : \iota \Rightarrow \iota$  be given. Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  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  $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v1\_card\_1 : \iota \Rightarrow o$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v3\_card\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $v2\_tdlat\_3 : \iota \Rightarrow o$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v7\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v1\_zfmisc\_1 : \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X2))) \Rightarrow (m1\_subset\_1 X0 X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 (k1\_zfmisc\_1 X1)) \Leftrightarrow (r1\_tarski X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. k4\_xboole\_0 X0 k1\_xboole\_0 = X0 \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (k4\_xboole\_0 X0 X1 = k1\_xboole\_0) \Leftrightarrow (r1\_tarski X0 X1) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (r1\_tarski (k2\_tarski X0 X1) X2) \Leftrightarrow ((X0 \in X2) \wedge (X1 \in X2)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X0 X1)\Rightarrow((v1\_xboole\_0 X1)\vee (X0 \in X1)) \quad (6)$$

Assume the following.

$$\forall X0.k1\_zfmisc\_1 (k1\_tarSKI X0) = k2\_tarSKI k1\_xboole\_0 (k1\_tarSKI X0) \quad (7)$$

Assume the following.

$$((v2\_xxreal\_0 np\_1)\wedge(m2\_subset\_1 np\_1 k1\_numbers k5\_numbers))\wedge ((m1\_subset\_1 np\_1 k5\_numbers)\wedge(m1\_subset\_1 np\_1 k1\_numbers)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.r1\_tarSKI X0 X0 \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.k6\_subset\_1 X0 X1 = k4\_xboole\_0 X0 X1 \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0 X0)\wedge(m1\_subset\_1 X1 X0))\Rightarrow (k6\_domain\_1 X0 X1 = k1\_tarSKI X1) \quad (11)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.\neg v1\_xboole\_0 (k2\_tarSKI X0 X1) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_card\_1 X0)\wedge((v13\_struct\_0 X1 X0)\wedge (l1\_struct\_0 X1)))\Rightarrow(v3\_card\_1 (u1\_struct\_0 X1) X0) \quad (14)$$

Assume the following.

$$\forall X0.\exists X1.m1\_subset\_1 X1 X0 \quad (15)$$

Assume the following.

$$\forall X0.(l1\_pre\_topc X0)\Rightarrow(m1\_subset\_1 (u1\_pre\_topc X0) (k1\_zfmisc\_1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \quad (16)$$

Assume the following.

$$\forall X0.(l1\_pre\_topc X0)\Rightarrow(l1\_struct\_0 X0) \quad (17)$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0) \Rightarrow ((v3\_tdlat\_3\ X0) \Leftrightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow ((X1 \in u1\_pre\_topc\ X0) \Rightarrow (k6\_subset\_1\ (u1\_struct\_0\ X0)\ X1 \in u1\_pre\_topc\ X0)))) \quad (18)$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0) \Rightarrow ((v2\_tdlat\_3\ X0) \Leftrightarrow (u1\_pre\_topc\ X0 = k2\_tarski\ k1\_xboole\_0\ (u1\_struct\_0\ X0))) \quad (19)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2\_tarski\ X0\ X1) \Leftrightarrow (\forall X3.(X3 \in X2) \Leftrightarrow ((X3 = X0) \vee (X3 = X1))) \quad (20)$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l1\_struct\_0\ X0)) \Rightarrow ((v7\_struct\_0\ X0) \Leftrightarrow (\exists X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \wedge (u1\_struct\_0\ X0 = k6\_domain\_1\ (u1\_struct\_0\ X0)\ X1))) \quad (21)$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1) \Leftrightarrow ((r1\_tarski\ X0\ X1) \wedge (r1\_tarski\ X1\ X0)) \quad (22)$$

Assume the following.

$$\forall X0.(v3\_card\_1\ X0\ np\_1) \Rightarrow ((\neg v1\_xboole\_0\ X0) \wedge (v1\_zfmisc\_1\ X0)) \quad (23)$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1) \Rightarrow (v7\_ordinal1\ X0) \quad (24)$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (v1\_card\_1\ X0) \quad (25)$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0) \Rightarrow ((v2\_tdlat\_3\ X0) \Rightarrow (v2\_pre\_topc\ X0)) \quad (26)$$

Assume the following.

$$\forall X0.(l1\_struct\_0\ X0) \Rightarrow ((v13\_struct\_0\ X0\ np\_1) \Rightarrow ((\neg v2\_struct\_0\ X0) \wedge (v7\_struct\_0\ X0))) \quad (27)$$

**Theorem 1**

$$\forall X0.((v13\_struct\_0\ X0\ np\_1) \wedge (l1\_pre\_topc\ X0)) \Rightarrow ((v3\_tdlat\_3\ X0) \Rightarrow ((v1\_xboole\_0\ (u1\_pre\_topc\ X0)) \vee (v2\_pre\_topc\ X0)))$$