

t7_borsuk_5

(TMJQ7A5QWCxHYq8UhS4LXww8DdMNghgfXoU)

October 27, 2020

Let $r4_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $r5_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \neg(r1_xboole_0 (k1_tarski X0) X1) \wedge (X0 \in X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (r1_xboole_0 X0 X1) \Rightarrow (r1_xboole_0 X1 X0) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge (\neg v1_xboole_0 X1)) \Rightarrow ((r1_subset_1 X0 X1) \Leftrightarrow (r1_xboole_0 X0 X1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \neg v1_xboole_0 (k4_enumset1 X0 X1 X2 X3 X4 X5) \quad (4)$$

Assume the following.

$$\forall X0. \neg v1_xboole_0 (k1_tarski X0) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \\ & \forall X6. (r5_zfmisc_1 X0 X1 X2 X3 X4 X5 X6) \Leftrightarrow ((X0 \neq X1) \wedge ((X0 \neq X2) \wedge \\ & ((X0 \neq X3) \wedge ((X0 \neq X4) \wedge ((X0 \neq X5) \wedge ((X0 \neq X6) \wedge ((X1 \neq X2) \wedge ((X1 \neq X3) \wedge \\ & (X1 \neq X4) \wedge ((X1 \neq X5) \wedge ((X1 \neq X6) \wedge ((X2 \neq X3) \wedge ((X2 \neq X4) \wedge ((X2 \neq X5) \wedge ((X2 \neq X6) \wedge \\ & ((X3 \neq X4) \wedge ((X3 \neq X5) \wedge ((X3 \neq X6) \wedge ((X4 \neq X5) \wedge ((X4 \neq X6) \wedge (X5 \neq \\ & X6)))))))))))))))))))))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\ & (r4_zfmisc_1\ X0\ X1\ X2\ X3\ X4\ X5) \Leftrightarrow ((X0 \neq X1) \wedge ((X0 \neq X2) \wedge ((X0 \neq X3) \wedge ((X0 \neq X4) \wedge ((X0 \neq X5) \wedge ((X1 \neq X2) \wedge ((X1 \neq X3) \wedge ((X1 \neq X4) \wedge ((X1 \neq X5) \wedge ((X2 \neq X3) \wedge ((X2 \neq X4) \wedge ((X2 \neq X5) \wedge ((X3 \neq X4) \wedge ((X3 \neq X5) \wedge (X4 \neq X5)))))))))))))) \\ & \tag{7} \end{aligned}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\ & \forall X6.(X6 = k4_enumset1\ X0\ X1\ X2\ X3\ X4\ X5) \Leftrightarrow (\forall X7.(X7 \in X6) \Leftrightarrow \\ & (\neg(X7 \neq X0) \wedge ((X7 \neq X1) \wedge ((X7 \neq X2) \wedge ((X7 \neq X3) \wedge ((X7 \neq X4) \wedge (X7 \neq X5)))))) \\ & \tag{8} \end{aligned}$$

Theorem 1

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\ & \forall X6.((r4_zfmisc_1\ X0\ X1\ X2\ X3\ X4\ X5) \wedge (r1_subset_1\ (k4_enumset1\ X0\ X1\ X2\ X3\ X4\ X5)\ (k1_tarski\ X6))) \Rightarrow (r5_zfmisc_1\ X0\ X1\ X2\ X3\ X4\ X5\ X6) \end{aligned}$$