

t60_ltlaxio1

(TMRVsryuV7Y5i3FBfaGRuMcik5k5QTvf6D7)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_hilbert1 : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r8_ltlaxio1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_hilbert1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_ltlaxio1 : \iota \Rightarrow \iota$ be given. Let $k4_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v5_hilbert1 : \iota \Rightarrow o$ be given. Let $v1_hilbert1 : \iota \Rightarrow o$ be given. Let $v2_hilbert1 : \iota \Rightarrow o$ be given. Let $v3_hilbert1 : \iota \Rightarrow o$ be given. Let $v4_hilbert1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_hilbert1) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k1_hilbert1) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 k1_hilbert1)) \Rightarrow \\ & ((r8_ltlaxio1 (k4_subset_1 k1_hilbert1 X2 (k6_domain_1 k1_hilbert1 \\ & X0)) X1) \Rightarrow (r8_ltlaxio1 X2 (k3_hilbert1 (k6_ltlaxio1 X0) X1)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_hilbert1) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k1_hilbert1) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 k1_hilbert1)) \Rightarrow \\ & ((k3_hilbert1 X0 X1 \in X2) \Rightarrow (r8_ltlaxio1 (k4_subset_1 k1_hilbert1 \\ & X2 (k6_domain_1 k1_hilbert1 X0)) (k6_ltlaxio1 X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X0 \in k2_xboole_0 X2 (k1_tarski X1)) \Leftrightarrow ((X0 \in X2) \vee (X0 = X1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X1 X0)) \Rightarrow (k6_domain_1 X0 X1 = k1_tarski X1) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((m1_subset_1 X1 (k1_zfmisc_1 \\ & X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 X0))) \Rightarrow (k4_subset_1 X0 X1 X2 = \\ & k2_xboole_0 X1 X2) \end{aligned} \quad (5)$$

Assume the following.

$$v5_hilbert1 \ k1_hilbert1 \tag{6}$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k1_hilbert1) \Rightarrow (m1_subset_1 \ (k6_ltlaxio1 \ X0) \ k1_hilbert1) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 \ X0) \wedge (m1_subset_1 \ X1 \ X0)) \Rightarrow (m1_subset_1 \ (k6_domain_1 \ X0 \ X1) \ (k1_zfmisc_1 \ X0)) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_subset_1 \ X1 \ (k1_zfmisc_1 \ X0)) \wedge (m1_subset_1 \ X2 \ (k1_zfmisc_1 \ X0))) \Rightarrow (m1_subset_1 \ (k4_subset_1 \ X0 \ X1 \ X2) \ (k1_zfmisc_1 \ X0)) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 \ X0 \ k1_hilbert1) \wedge (m1_subset_1 \ X1 \ k1_hilbert1)) \Rightarrow (m1_subset_1 \ (k3_hilbert1 \ X0 \ X1) \ k1_hilbert1) \tag{10}$$

Assume the following.

$$\forall X0.(v5_hilbert1 \ X0) \Rightarrow ((\neg v1_xboole_0 \ X0) \wedge ((v1_hilbert1 \ X0) \wedge ((v2_hilbert1 \ X0) \wedge ((v3_hilbert1 \ X0) \wedge (v4_hilbert1 \ X0))))) \tag{11}$$

Theorem 1

$$\forall X0.(m1_subset_1 \ X0 \ k1_hilbert1) \Rightarrow (\forall X1.(m1_subset_1 \ X1 \ k1_hilbert1) \Rightarrow (\forall X2.(m1_subset_1 \ X2 \ (k1_zfmisc_1 \ k1_hilbert1)) \Rightarrow (r8_ltlaxio1 \ X2 \ (k3_hilbert1 \ (k6_ltlaxio1 \ (k3_hilbert1 \ X0 \ X1)) \ (k3_hilbert1 \ (k6_ltlaxio1 \ X0) \ (k6_ltlaxio1 \ X1))))))$$