

t47_ltlaxio1

(TMP5BX4yYVTngsAGHnefDqdJXzdArnaVpEj)

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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 $k13_ltlaxio1 : \iota$ be given. Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_hilbert1) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 (k1_zfmisc_1 k1_hilbert1)) \Rightarrow (((X0 \in k13_ltlaxio1) \vee (X0 \in X1)) \Rightarrow \\ & (r8_ltlaxio1 X1 X0))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_hilbert1) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k1_hilbert1) \Rightarrow (\forall X2.(m1_subset_1 X2 k1_hilbert1) \Rightarrow (k3_hilbert1 \\ & (k3_hilbert1 X0 (k3_hilbert1 X1 X2)) (k3_hilbert1 (k3_hilbert1 \\ & X0 X1) (k3_hilbert1 X0 X2)) \in k13_ltlaxio1))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_hilbert1) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k1_hilbert1) \Rightarrow (k3_hilbert1 X0 (k3_hilbert1 X1 X0) \in k13_ltlaxio1)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((m1_subset_1 X0 k1_hilbert1) \wedge (m1_subset_1 \\ & X1 k1_hilbert1)) \Rightarrow (m1_subset_1 (k3_hilbert1 X0 X1) k1_hilbert1) \end{aligned} \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_hilbert1) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k1_hilbert1) \Rightarrow (\forall X2.(m1_subset_1 X2 k1_hilbert1) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 (k1_zfmisc_1 k1_hilbert1)) \Rightarrow (((r8_ltlaxio1 X3 \\ & (k3_hilbert1 X0 X1)) \wedge (r8_ltlaxio1 X3 (k3_hilbert1 X1 X2))) \Rightarrow (r8_ltlaxio1 \\ & X3 (k3_hilbert1 X0 X2)))))) \end{aligned}$$