t54_ltlaxio1 (TM-RAyxje7kGEpemeQnYH1TEB9EyVdduBms7)

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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 $k6\_ltlaxio1 : \iota \Rightarrow \iota$ be given. Let $k3\_hilbert1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_ltlaxio1 : \iota \Rightarrow \iota$ be given. Let $k13\_ltlaxio1 : \iota$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_hilbert1) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k1\_hilbert1) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ k1\_hilbert1)) \Rightarrow (((r8\_ltlaxio1\ X2\ (k3\_hilbert1\ X0\ X1)) \wedge (r8\_ltlaxio1\ X2\ (k3\_hilbert1\ X0\ (k2\_ltlaxio1\ X0)))) \Rightarrow (r8\_ltlaxio1\ X2\ (k3\_hilbert1\ X0\ (k6\_ltlaxio1\ X1))))))) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_hilbert1) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ k1\_hilbert1)) \Rightarrow ((r8\_ltlaxio1\ X1\ X0) \Rightarrow (r8\_ltlaxio1\ X1\ (k2\_ltlaxio1\ X0)))) \tag{2}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_hilbert1) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k1\_hilbert1) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ k1\_hilbert1)) \Rightarrow (((r8\_ltlaxio1\ X2\ X0) \wedge (r8\_ltlaxio1\ X2\ (k3\_hilbert1\ X0\ X1))) \Rightarrow (r8\_ltlaxio1\ X2\ X1)))) \tag{3}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_hilbert1) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ k1\_hilbert1)) \Rightarrow (((X0 \in k13\_ltlaxio1) \vee (X0 \in X1)) \Rightarrow (r8\_ltlaxio1\ X1\ X0))) \tag{4}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_hilbert1) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k1\_hilbert1) \Rightarrow (k3\_hilbert1\ X0\ (k3\_hilbert1\ X1\ X0) \in k13\_ltlaxio1)) \tag{5}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_hilbert1)\Rightarrow(m1\_subset\_1\ (k6\_ltlaxio1\ X0)\ k1\_hilbert1) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k1\_hilbert1)\wedge(m1\_subset\_1\ X1\ k1\_hilbert1))\Rightarrow(m1\_subset\_1\ (k3\_hilbert1\ X0\ X1)\ k1\_hilbert1) \tag{7}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_hilbert1)\Rightarrow(m1\_subset\_1\ (k2\_ltlaxio1\ X0)\ k1\_hilbert1) \tag{8}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ k1\_hilbert1)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ k1\_hilbert1))\Rightarrow((r8\_ltlaxio1\ X1\ X0)\Rightarrow(r8\_ltlaxio1\ X1\ (k6\_ltlaxio1\ X0))))$$