l39_hilbert1 (TMUnsCz8Xfx3GEnqvxVdqCHStyZj8fwZhjK)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_hilbert1 : \iota$ be given. Let $k3\_hilbert1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_hilbert1 : \iota$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_hilbert1) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k1\_hilbert1) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k1\_hilbert1) \Rightarrow ((k3\_hilbert1\ X0\ X1 \in k6\_hilbert1) \Rightarrow (k3\_hilbert1\ (k3\_hilbert1\ X1\ X2)\ (k3\_hilbert1\ X0\ X2) \in k6\_hilbert1)))) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_hilbert1) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k1\_hilbert1) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k1\_hilbert1) \Rightarrow (k3\_hilbert1\ (k3\_hilbert1\ X0\ X1)\ (k3\_hilbert1\ (k3\_hilbert1\ X1\ X2)\ (k3\_hilbert1\ X0\ X2)) \in k6\_hilbert1))) \tag{2}$$

Assume the following.

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

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ k1\_hilbert1) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k1\_hilbert1) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k1\_hilbert1) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ k1\_hilbert1) \Rightarrow (k3\_hilbert1\ (k3\_hilbert1\ (k3\_hilbert1\ (k3\_hilbert1\ X0\ X1)\ (k3\_hilbert1\ X2\ X1))\ X3)\ (k3\_hilbert1\ (k3\_hilbert1\ X2\ X0)\ X3) \in k6\_hilbert1))))$$