

t33_hilbert1

(TMQFz5dB5AJZA6JMRui4NHkujkdB3akku7v)

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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 $k4_hilbert1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_hilbert1 : \iota$ be given. Let $v6_hilbert1 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_hilbert1 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_hilbert1) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k1_hilbert1) \Rightarrow (\forall X2.(m1_subset_1 X2 k1_hilbert1) \Rightarrow ((\\ & (k3_hilbert1 X0 X1 \in k6_hilbert1) \wedge (k3_hilbert1 X1 X2 \in k6_hilbert1)) \Rightarrow \\ & (k3_hilbert1 X0 X2 \in k6_hilbert1)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_hilbert1) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k1_hilbert1) \Rightarrow (\forall X2.(m1_subset_1 X2 k1_hilbert1) \Rightarrow ((\\ & k3_hilbert1 X0 X1 \in k6_hilbert1) \Rightarrow (k3_hilbert1 (k3_hilbert1 X1 \\ & X2) (k3_hilbert1 X0 X2) \in k6_hilbert1)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_hilbert1) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k1_hilbert1) \Rightarrow (\forall X2.(m1_subset_1 X2 k1_hilbert1) \Rightarrow (k3_hilbert1 \\ & (k3_hilbert1 X0 X1) (k3_hilbert1 (k3_hilbert1 X2 X0) (k3_hilbert1 \\ & X2 X1)) \in k6_hilbert1))) \end{aligned} \tag{3}$$

Assume the following.

$$v6_hilbert1 k6_hilbert1 \tag{4}$$

Assume the following.

$$m1_subset_1 k6_hilbert1 (k1_zfmisc_1 k1_hilbert1) \tag{5}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((m1_subset_1 X0 k1_hilbert1) \wedge (m1_subset_1 \\ & X1 k1_hilbert1)) \Rightarrow (m1_subset_1 (k4_hilbert1 X0 X1) k1_hilbert1) \end{aligned} \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_hilbert1)\wedge(m1_subset_1 X1 k1_hilbert1))\Rightarrow(m1_subset_1 (k3_hilbert1 X0 X1) k1_hilbert1) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 k1_hilbert1))\Rightarrow((v6_hilbert1 \\ X0)\Leftrightarrow((k2_hilbert1 \in X0)\wedge(\forall X1.(m1_subset_1 X1 k1_hilbert1)\Rightarrow \\ (\forall X2.(m1_subset_1 X2 k1_hilbert1)\Rightarrow(\forall X3.(m1_subset_1 \\ X3 k1_hilbert1)\Rightarrow((k3_hilbert1 X1 (k3_hilbert1 X2 X1) \in X0)\wedge((k3_hilbert1 \\ (k3_hilbert1 X1 (k3_hilbert1 X2 X3)) (k3_hilbert1 (k3_hilbert1 \\ X1 X2) (k3_hilbert1 X1 X3)) \in X0)\wedge((k3_hilbert1 (k4_hilbert1 X1 \\ X2) X1 \in X0)\wedge((k3_hilbert1 (k4_hilbert1 X1 X2) X2 \in X0)\wedge((k3_hilbert1 \\ X1 (k3_hilbert1 X2 (k4_hilbert1 X1 X2)) \in X0)\wedge(((X1 \in X0)\wedge(k3_hilbert1 \\ X1 X2 \in X0))\Rightarrow(X2 \in X0)))))))))) \end{aligned} \quad (8)$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k1_hilbert1)\Rightarrow(\forall X1.(m1_subset_1 \\ X1 k1_hilbert1)\Rightarrow(\forall X2.(m1_subset_1 X2 k1_hilbert1)\Rightarrow(k3_hilbert1 \\ (k3_hilbert1 (k4_hilbert1 X0 X1) X2) (k3_hilbert1 X0 (k3_hilbert1 \\ X1 X2)) \in k6_hilbert1))) \end{aligned}$$