

t14\_hilbert1 (TMd-  
VkZ49fUrgi7VrDkmHGsxqmCEhNxzMshH)

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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. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $v6\_hilbert1 : \iota \Rightarrow o$  be given. Let  $k2\_hilbert1 : \iota$  be given. Let  $k4\_hilbert1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X2))) \Rightarrow (m1\_subset\_1 X0 X2) \quad (1)$$

Assume the following.

$$v6\_hilbert1 k6\_hilbert1 \quad (2)$$

Assume the following.

$$m1\_subset\_1 k6\_hilbert1 (k1\_zfmisc\_1 k1\_hilbert1) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((m1\_subset\_1 X0 k1\_hilbert1) \wedge (m1\_subset\_1 X1 k1\_hilbert1)) \Rightarrow (m1\_subset\_1 (k3\_hilbert1 X0 X1) k1\_hilbert1) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0. (m1\_subset\_1 X0 (k1\_zfmisc\_1 k1\_hilbert1)) \Rightarrow & ((v6\_hilbert1 X0) \Leftrightarrow ((k2\_hilbert1 \in X0) \wedge (\forall X1. (m1\_subset\_1 X1 k1\_hilbert1) \Rightarrow \\ & (\forall X2. (m1\_subset\_1 X2 k1\_hilbert1) \Rightarrow (\forall X3. (m1\_subset\_1 X3 k1\_hilbert1) \Rightarrow ((k3\_hilbert1 X1 (k3\_hilbert1 X2 X1) \in X0) \wedge ((k3\_hilbert1 \\ & (k3\_hilbert1 X1 (k3\_hilbert1 X2 X3)) (k3\_hilbert1 (k3\_hilbert1 X1 X2) (k3\_hilbert1 X1 X3)) \in X0) \wedge ((k3\_hilbert1 (k4\_hilbert1 X1 X2) X1 \in X0) \wedge ((k3\_hilbert1 (k4\_hilbert1 X1 X2) X2 \in X0) \wedge ((k3\_hilbert1 X1 (k3\_hilbert1 X2 (k4\_hilbert1 X1 X2)) \in X0) \wedge (((X1 \in X0) \wedge (k3\_hilbert1 X1 X2 \in X0)) \Rightarrow (X2 \in X0))))))))))))) \end{aligned} \quad (5)$$

**Theorem 1**

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