t30_hilbert2 (TMM8QGmvKevj6Mf9yWa3iPqAWfnEeqhfgcv)

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Let $k3\_hilbert2 : \iota \Rightarrow \iota$ be given. Let $k2\_hilbert1 : \iota$ be given. Let $k2\_trees\_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_hilbert1 : \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $k2\_hilbert2 : \iota$ be given. Let $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $k1\_hilbert2 : \iota \Rightarrow \iota$ be given. Let $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3\_trees\_2 : \iota \Rightarrow o$ be given. Let $k4\_hilbert1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_trees\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_hilbert1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$(v1\_relat\_1\ k2\_hilbert2) \wedge ((v4\_relat\_1\ k2\_hilbert2\ k1\_hilbert1) \wedge ((v1\_funct\_1\ k2\_hilbert2) \wedge (v1\_partfun1\ k2\_hilbert2\ k1\_hilbert1))) \tag{1}$$

Assume the following.

$$m1\_subset\_1\ k2\_hilbert1\ k1\_hilbert1 \tag{2}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v4\_relat\_1\ X0\ k1\_hilbert1) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_partfun1\ X0\ k1\_hilbert1)))) \Rightarrow ((X0 = k2\_hilbert2) \Leftrightarrow ((k1\_funct\_1\ X0\ k2\_hilbert1 = k2\_trees\_4\ k1\_hilbert1\ k2\_hilbert1) \wedge ((\forall X1.(m1\_subset\_1\ X1\ k5\_numbers) \Rightarrow (k1\_funct\_1\ X0\ (k1\_hilbert2\ X1) = k2\_trees\_4\ k1\_hilbert1\ (k1\_hilbert2\ X1))) \wedge (\forall X1.(m1\_subset\_1\ X1\ k1\_hilbert1) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k1\_hilbert1) \Rightarrow (\exists X3.((v1\_relat\_1\ X3) \wedge ((v5\_relat\_1\ X3\ k1\_hilbert1) \wedge ((v1\_funct\_1\ X3) \wedge (v3\_trees\_2\ X3)))) \wedge (\exists X4.((v1\_relat\_1\ X4) \wedge ((v5\_relat\_1\ X4\ k1\_hilbert1) \wedge ((v1\_funct\_1\ X4) \wedge (v3\_trees\_2\ X4)))) \wedge ((X3 = k1\_funct\_1\ X0\ X1) \wedge ((X4 = k1\_funct\_1\ X0\ X2) \wedge ((k1\_funct\_1\ X0\ (k4\_hilbert1\ X1\ X2) = k6\_trees\_4\ (k4\_hilbert1\ X1\ X2)\ X3\ X4) \wedge (k1\_funct\_1\ X0\ (k3\_hilbert1\ X1\ X2) = k6\_trees\_4\ (k3\_hilbert1\ X1\ X2)\ X3\ X4)))))))))))) \tag{3}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_hilbert1) \Rightarrow (k3\_hilbert2\ X0 = k1\_funct\_1\ k2\_hilbert2\ X0) \tag{4}$$

Theorem 1 $k3\_hilbert2\ k2\_hilbert1 = k2\_trees\_4\ k1\_hilbert1\ k2\_hilbert1$.