t13_catalg_1 (TMFd4tdc2LgfP55bD8PWEPBCX21NTmiZoT9)

October 27, 2020

Let $k7\_catalg\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $np\_\_2 : \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. (k11\_finseq\_1\ X0\ X1\ X2 = k11\_finseq\_1\ X3\ X4\ X5) \Rightarrow ((X0 = X3) \wedge ((X1 = X4) \wedge (X2 = X5))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(k4\_tarski\ X0\ X1 = k4\_tarski\ X2\ X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.k4\_tarski\ X0\ X1 = k2\_tarski\ (k2\_tarski\ X0\ X1)\ (k1\_tarski\ X0) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k7\_catalg\_1\ X0\ X1\ X2 = k4\_tarski\ np\_\_2\ (k11\_finseq\_1\ X0\ X1\ X2) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.k2\_tarski\ X0\ X1 = k2\_tarski\ X1\ X0 \tag{5}$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. (k7\_catalg\_1\ X0\ X2\ X4 = k7\_catalg\_1\ X1\ X3\ X5) \Rightarrow ((X0 = X1) \wedge ((X2 = X3) \wedge (X4 = X5)))$$