t41_xtuple_0 (TMdiiMLiJ3sS2i6Pkpi1Zm2eHvNQ5pLkXSN)

October 27, 2020

Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k13\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k11\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.(r1\_tarski\ X0\ X1) \Rightarrow (r1\_tarski\ (k9\_xtuple\_0\ X0)\ (k9\_xtuple\_0\ X1)) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.r1\_tarski\ (k4\_xboole\_0\ (k11\_xtuple\_0\ X0)\ (k11\_xtuple\_0\ X1))\ (k11\_xtuple\_0\ (k4\_xboole\_0\ X0\ X1)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.r1\_tarski\ (k4\_xboole\_0\ (k9\_xtuple\_0\ X0)\ (k9\_xtuple\_0\ X1))\ (k9\_xtuple\_0\ (k4\_xboole\_0\ X0\ X1)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((r1\_tarski\ X0\ X1) \wedge (r1\_tarski\ X1\ X2)) \Rightarrow (r1\_tarski\ X0\ X2) \tag{4}$$

Assume the following.

$$\forall X0.k13\_xtuple\_0\ X0 = k9\_xtuple\_0\ (k11\_xtuple\_0\ X0) \tag{5}$$

Assume the following.

$$\forall X0.k11\_xtuple\_0\ X0 = k9\_xtuple\_0\ (k9\_xtuple\_0\ X0) \tag{6}$$

Theorem 1

$$\forall X0.\forall X1.r1\_tarski\ (k4\_xboole\_0\ (k13\_xtuple\_0\ X0)\ (k13\_xtuple\_0\ X1))\ (k13\_xtuple\_0\ (k4\_xboole\_0\ X0\ X1))$$