t14_funct_7 (TMV9uFWve3rtknGffNBfvPX4E67G7wiFh3J)

October 27, 2020

Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $k1\_funct\_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow (\forall X1.\forall X2.\ (r1\_tarski\ (k9\_xtuple\_0\ X0)\ (k2\_xboole\_0\ X1\ X2)) \Rightarrow (k1\_funct\_4\ (k5\_relat\_1\ X0\ X1)\ (k5\_relat\_1\ X0\ X2) = X0)) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow (\forall X1.(X1 \in k9\_xtuple\_0\ X0) \Rightarrow (k5\_relat\_1\ X0\ (k1\_tarski\ X1) = k16\_funcop\_1\ X1\ (k1\_funct\_1\ X0\ X1))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.r1\_tarski\ X0\ X0 \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2\_xboole\_0\ X0\ X1) \Leftrightarrow (\forall X3.\ (X3 \in X2) \Leftrightarrow ((X3 \in X0) \vee (X3 \in X1))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1\_tarski\ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (X2 = X0)) \tag{5}$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.((v1\_relat\_1\ X2) \wedge (v1\_funct\_1\ X2)) \Rightarrow ((k9\_xtuple\_0\ X2 = k2\_xboole\_0\ X0\ (k1\_tarski\ X1)) \Rightarrow (X2 = k1\_funct\_4\ (k5\_relat\_1\ X2\ X0)\ (k16\_funcop\_1\ X1\ (k1\_funct\_1\ X2\ X1))))$$