t2_quaterni (TMWuiZQeTtDehMDYwB1mLKKekQvRARPdsFa)

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Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k2\_quaterni : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k4\_funct\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $k1\_funct\_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(k9\_xtuple\_0\ (k4\_funct\_4\ X0\ X1\ X2\ X3) = k2\_tarski\ X0\ X1) \wedge (r1\_tarski\ (k10\_xtuple\_0\ (k4\_funct\_4\ X0\ X1\ X2\ X3))\ (k2\_tarski\ X2\ X3)) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.k2\_enumset1\ X0\ X1\ X2\ X3 = k2\_xboole\_0\ (k2\_tarski\ X0\ X1)\ (k2\_tarski\ X2\ X3) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((r1\_tarski\ X0\ X1) \wedge (r1\_tarski\ X1\ X2)) \Rightarrow (r1\_tarski\ X0\ X2) \tag{3}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge (v1\_funct\_1\ X1)) \Rightarrow (r1\_tarski\ (k10\_xtuple\_0\ (k1\_funct\_4\ X0\ X1))\ (k2\_xboole\_0\ (k10\_xtuple\_0\ X0)\ (k10\_xtuple\_0\ X1)))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((r1\_tarski\ X0\ X1) \wedge (r1\_tarski\ X2\ X3)) \Rightarrow (r1\_tarski\ (k2\_xboole\_0\ X0\ X2)\ (k2\_xboole\_0\ X1\ X3)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(v1\_relat\_1\ (k4\_funct\_4\ X0\ X1\ X2\ X3)) \wedge (v1\_funct\_1\ (k4\_funct\_4\ X0\ X1\ X2\ X3)) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5.\\ \forall X6.\forall X7.k2\_quaterni\ X0\ X1\ X2\ X3\ X4\ X5\ X6\ X7 = k1\_funct\_4 \\ (k4\_funct\_4\ X0\ X1\ X4\ X5)\ (k4\_funct\_4\ X2\ X3\ X6\ X7) \tag{7}$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5.\\ \forall X6.\forall X7.r1\_tarski\ (k10\_xtuple\_0\ (k2\_quaterni\ X0\\ X1\ X2\ X3\ X4\ X5\ X6\ X7))\ (k2\_enumset1\ X4\ X5\ X6\ X7)$$