t100_card_2 (TMKLa-PAeoCp1WqRTz2aKMXZd7aJYN1NvJga)

October 27, 2020

Let $v4\_card\_3 : \iota \Rightarrow o$ be given. Let $k5\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.((v4\_card\_3\ X0) \wedge (v4\_card\_3\ X1)) \Rightarrow (v4\_card\_3\ (k2\_xboole\_0\ X0\ X1)) \tag{1}$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.((r1\_tarski\ X0\ X1) \wedge (v4\_card\_3\ X1)) \Rightarrow (v4\_card\_3\ X0) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.k5\_xboole\_0\ X0\ X1 = k2\_xboole\_0\ (k4\_xboole\_0\ X0\ X1)\ (k4\_xboole\_0\ X1\ X0) \tag{4}$$

Theorem 1

$$\forall X0.\forall X1.((v4\_card\_3\ X0) \wedge (v4\_card\_3\ X1)) \Rightarrow (v4\_card\_3\ (k5\_xboole\_0\ X0\ X1))$$