

t112_func4 (TM-
 MXYb4oAQc5bBDAYQWAwLemATVjDx2J6i6)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k16_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Assume the following.

$$\forall X0. \forall X1. k16_funcop_1 X0 X1 = k1_tarski (k4_tarski X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. (v1_relat_1 X0) \Rightarrow (r1_tarski X0 (k2_zfmisc_1 (k9_xtuple_0 X0) (k10_xtuple_0 X0))) \quad (2)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 (k1_tarski X1)) \Leftrightarrow ((X0 = k1_xboole_0) \vee (X0 = k1_tarski X1)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. k2_zfmisc_1 (k1_tarski X0) (k1_tarski X1) = k1_tarski (k4_tarski X0 X1) \quad (5)$$

Assume the following.

$$\forall X0. \neg v1_xboole_0 (k1_tarski X0) \quad (6)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (7)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (v1_xboole_0 (k9_xtuple_0 X0)) \quad (8)$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.(v1_relat_1 X2)\Rightarrow(((k9_xtuple_0 X2 = k1_tarski X0)\wedge(k10_xtuple_0 X2 = k1_tarski X1))\Rightarrow(X2 = k16_funcop_1 X0 X1))$$