

t97_xboole_1

(TMdjw9ybsmpw1aWJ8KZxWNzcy42xbrkAmYV)

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Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1_tarski X0 X1) \wedge (r1_tarski X2 X1)) \Rightarrow (r1_tarski (k2_xboole_0 X0 X2) X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. k5_xboole_0 X0 X1 = k2_xboole_0 (k4_xboole_0 X0 X1) (k4_xboole_0 X1 X0) \quad (2)$$

Theorem 1

$$\forall X0. \forall X1. \forall X2. ((r1_tarski (k4_xboole_0 X0 X1) X2) \wedge (r1_tarski (k4_xboole_0 X1 X0) X2)) \Rightarrow (r1_tarski (k5_xboole_0 X0 X1) X2)$$