

t38\_xboole\_1

(TMawu7MRkExqnNP9aZqnpkdetQoQkbZyumg)

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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  $k1\_xboole\_0 : \iota$  be given. Assume the following.

$$\forall X0. r1\_tarski\ k1\_xboole\_0\ X0 \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (X2 = k4\_xboole\_0\ X0\ X1) \Leftrightarrow (\forall X3. \\ (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (\neg X3 \in X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski\ X0\ X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (X0 = X1) \Leftrightarrow ((r1\_tarski\ X0\ X1) \wedge (r1\_tarski\ X1\ X0)) \quad (4)$$

**Theorem 1**

$$\forall X0. \forall X1. (r1\_tarski\ X0\ (k4\_xboole\_0\ X1\ X0)) \Rightarrow (X0 = k1\_xboole\_0)$$