

t13\_xboole\_1  
(TMTCT6C1zRLfJvA2bM6KvJELgRurAcPGTa9)

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Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k2\_xboole\_0 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \vee (X3 \in X1))) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (2)$$

**Theorem 1**

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