

# t37\_xtuple\_0 (TMcHmkGnVSR- FCbf1ZUsRrxof9p3McT5PbG2)

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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  $k12\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. r1\_tarski X0 (k2\_xboole\_0 X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (r1\_tarski X0 (k2\_xboole\_0 X1 X2)) \Rightarrow (r1\_tarski (k4\_xboole\_0 X0 X1) X2) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. k2\_xboole\_0 X0 (k4\_xboole\_0 X1 X0) = k2\_xboole\_0 X0 X1 \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. k12\_xtuple\_0 (k2\_xboole\_0 X0 X1) = k2\_xboole\_0 (k12\_xtuple\_0 X0) (k12\_xtuple\_0 X1) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Rightarrow (r1\_tarski (k12\_xtuple\_0 X0) (k12\_xtuple\_0 X1)) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. k2\_xboole\_0 X0 X1 = k2\_xboole\_0 X1 X0 \quad (6)$$

**Theorem 1**

$$\forall X0. \forall X1. r1\_tarski (k4\_xboole\_0 (k12\_xtuple\_0 X0) (k12\_xtuple\_0 X1)) (k12\_xtuple\_0 (k4\_xboole\_0 X0 X1))$$