

## t47\_rewrite1

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_rewrite1 : \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_relat\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1\_tarski X0 X1) \wedge (r1\_tarski X1 X2)) \Rightarrow (r1\_tarski X0 X2) \quad (1)$$

Assume the following.

$$\forall X0. (v1\_relat\_1 X0) \Rightarrow (\forall X1. (v1\_relat\_1 X1) \Rightarrow ((r1\_tarski X0 X1) \Rightarrow (r1\_tarski (k1\_relat\_1 X0) (k1\_relat\_1 X1)))) \quad (2)$$

Assume the following.

$$\forall X0. (v1\_relat\_1 X0) \Rightarrow (\forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. \forall X3. (k4\_tarski X2 X3 \in X0) \Rightarrow (k4\_tarski X2 X3 \in X1))) \quad (3)$$

Assume the following.

$$\forall X0. (v1\_relat\_1 X0) \Rightarrow ((v1\_rewrite1 X0) \Leftrightarrow (\forall X1. \neg (r1\_tarski X1 (k1\_relat\_1 X0)) \wedge ((X1 \neq k1\_xboole\_0) \wedge (\forall X2. \neg (X2 \in X1) \wedge (\forall X3. \neg (X3 \in X1) \wedge ((X2 \neq X3) \wedge (k4\_tarski X2 X3 \in X0))))))) \quad (4)$$

**Theorem 1**

$$\forall X0. ((v1\_relat\_1 X0) \wedge (v1\_rewrite1 X0)) \Rightarrow (\forall X1. (v1\_relat\_1 X1) \Rightarrow ((r1\_tarski X1 X0) \Rightarrow (v1\_rewrite1 X1)))$$