

t1_topreal8 (TMK- sexnD8CnDvoBAwttqyBfTDRCpHQC4LMJ)

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Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. (X0 \in X1) \Rightarrow (((X2 \in X1) \wedge (X0 \neq X2)) \vee (k3_xboole_0 (k2_tarski X0 X2) X1 = k1_tarski X0)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Rightarrow (k3_xboole_0 X0 X1 = X0) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. k2_tarski X0 X1 = k2_xboole_0 (k1_tarski X0) (k1_tarski X1) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. k3_xboole_0 X0 X1 = k3_xboole_0 X1 X0 \quad (4)$$

Theorem 1

$$\forall X0. \forall X1. \forall X2. ((r1_tarski X0 (k2_tarski X1 X2)) \wedge (X1 \in X0)) \Rightarrow ((X2 \in X0) \vee (X0 = k1_tarski X1))$$