

t20_xboole_1
(TMYJd3hjt7bwf6EQwWbakbQuzqbunVh5uoZ)

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

$$\forall X0. \forall X1. \forall X2. ((r1_tarski X0 X1) \wedge (r1_tarski X0 X2)) \Rightarrow (r1_tarski X0 (k3_xboole_0 X1 X2)) \quad (1)$$

Assume the following.

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

Assume the following.

$$\forall X0. \forall X1. (X0 = X1) \Leftrightarrow ((r1_tarski X0 X1) \wedge (r1_tarski X1 X0)) \quad (3)$$

Assume the following.

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

Theorem 1

$$\forall X0. \forall X1. \forall X2. ((r1_tarski X0 X1) \wedge ((r1_tarski X0 X2) \wedge (\forall X3. ((r1_tarski X3 X1) \wedge (r1_tarski X3 X2)) \Rightarrow (r1_tarski X3 X0)))) \Rightarrow (X0 = k3_xboole_0 X1 X2)$$