

t142_relat_1 (TMPaixzoAMd- dXjwN9RsJwpyyJR5tRyCVEH4)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. (v1_relat_1 X2) \Rightarrow ((X0 \in k8_relat_1 X2 X1) \Leftrightarrow (\exists X3. (X3 \in k10_xtuple_0 X2) \wedge ((k4_tarski X0 X3 \in X2) \wedge (X3 \in X1)))) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. k6_subset_1 X0 X1 = k4_xboole_0 X0 X1 \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k4_xboole_0 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (\neg X3 \in X1))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (4)$$

Theorem 1

$$\forall X0. \forall X1. \forall X2. (v1_relat_1 X2) \Rightarrow (r1_tarski (k6_subset_1 (k8_relat_1 X2 X0) (k8_relat_1 X2 X1)) (k8_relat_1 X2 (k6_subset_1 X0 X1)))$$