

t12_relset_2

(TMHxpd3L9L4Y1eRVCQbZcyR7PEKvcktQdCj)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k9_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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.

$$\forall X0. \forall X1. \forall X2. (v1_relat_1 X2) \Rightarrow ((X0 \in k9_relat_1 X2 X1) \Leftrightarrow (k4_tarski X1 X0 \in X2)) \quad (1)$$

Assume the following.

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

Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X0) \Rightarrow (v1_relat_1 (k4_xboole_0 X0 X1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k4_xboole_0 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (\neg X3 \in X1))) \quad (4)$$

Theorem 1

$$\forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow (\forall X2. (v1_relat_1 X2) \Rightarrow (k9_relat_1 (k6_subset_1 X1 X2) X0 = k6_subset_1 (k9_relat_1 X1 X0) (k9_relat_1 X2 X0)))$$