

t12_sysrel (TMMwktkYUp- pRY4DjU5Qiz9u9qUjmyTWQFZG)

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Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_relat_1 : \iota \Rightarrow \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. k3_relat_1 (k4_relat_1 X1) (k4_relat_1 X0) = k4_relat_1 (k3_xboole_0 X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k3_xboole_0 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (X3 \in X1))) \quad (2)$$

Theorem 1 $\forall X0. k3_relat_1 (k4_relat_1 X0) (k4_relat_1 X0) = k4_relat_1 X0.$