

t66_relat_1
(TMNG5m5BpCroNftoa7KmRsqoz9E6MaC8UyA)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow (k9_xtuple_0 (k5_relat_1 X1 X0) = k3_xboole_0 (k9_xtuple_0 X1) X0) \quad (1)$$

Assume the following.

$$\forall X0. (v1_relat_1 X0) \Rightarrow (((k9_xtuple_0 X0 = k1_xboole_0) \vee (k10_xtuple_0 X0 = k1_xboole_0)) \Rightarrow (X0 = k1_xboole_0)) \quad (2)$$

Assume the following.

$$(k9_xtuple_0 k1_xboole_0 = k1_xboole_0) \wedge (k10_xtuple_0 k1_xboole_0 = k1_xboole_0) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X0) \Rightarrow (v1_relat_1 (k5_relat_1 X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (r1_xboole_0 X0 X1) \Leftrightarrow (k3_xboole_0 X0 X1 = k1_xboole_0) \quad (5)$$

Theorem 1

$$\forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow ((k5_relat_1 X1 X0 = k1_xboole_0) \Leftrightarrow (r1_xboole_0 (k9_xtuple_0 X1) X0))$$