

t172_relat_1
(TMUkDZZzNJHkmgxgskcUiafni1q2xnc7EmA)

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

$$\forall X0.(v1_relat_1 X0) \Rightarrow (k5_relat_1 X0 k1_xboole_0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(v1_relat_1 X2) \Rightarrow (k5_relat_1 (k5_relat_1 X2 X0) X1 = k5_relat_1 X2 (k3_xboole_0 X0 X1)) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(r1_xboole_0 X0 X1) \Leftrightarrow (k3_xboole_0 X0 X1 = k1_xboole_0) \quad (3)$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.(v1_relat_1 X2) \Rightarrow ((r1_xboole_0 X0 X1) \Rightarrow (k5_relat_1 (k5_relat_1 X2 X0) X1 = k1_xboole_0))$$