

t88_relat_1

(TMS6RUNNeVuRSoeEEQNNejbjNUKyaQVCGkHY)

October 27, 2020

Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k6_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. (v1_relat_1 X2) \Rightarrow ((X0 \in k10_xtuple_0 (k6_relat_1 X1 X2)) \Leftrightarrow ((X0 \in X1) \wedge (X0 \in k10_xtuple_0 X2))) \quad (1)$$

Assume the following.

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

Assume the following.

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

Theorem 1

$$\forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow (k10_xtuple_0 (k6_relat_1 X0 X1) = k3_xboole_0 (k10_xtuple_0 X1) X0)$$