

t87_orders_1

(TMTVJJg8ZkbFm2s8RSZVDbHHWZDicmsdB7p)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_relat_1 : \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow ((v1_finset_1 (k1_relat_1 X0)) \Rightarrow (v1_finset_1 X0)) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.((v1_finset_1 X0) \wedge (v1_finset_1 X1)) \Rightarrow (v1_finset_1 (k2_xboole_0 X0 X1)) \quad (2)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (k1_relat_1 X0 = k2_xboole_0 (k9_xtuple_0 X0) (k10_xtuple_0 X0)) \quad (3)$$

Theorem 1

$$\forall X0.(v1_relat_1 X0) \Rightarrow (((v1_finset_1 (k9_xtuple_0 X0)) \wedge (v1_finset_1 (k10_xtuple_0 X0))) \Rightarrow (v1_finset_1 X0))$$