

t18_exchsort
(TMWjzjP5NEUgPMm9A9tyxkc4vt9njiNNR5t)

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Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v2_exchsort : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (v1_xboole_0 (k9_xtuple_0 X0)) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(v2_exchsort X1 X0) \Leftrightarrow \\ & (\forall X2.(v3_ordinal1 X2) \Rightarrow ((X2 \in k9_xtuple_0 X1) \Rightarrow ((X0 \in k9_xtuple_0 \\ & X1) \wedge (r1_ordinal1 X0 X2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Leftrightarrow (\forall X1. \neg X1 \in X0) \quad (3)$$

Theorem 1

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(v1_xboole_0 X1) \Rightarrow (v2_exchsort X1 X0))$$