

t80_exchsort
(TMLaX8eVZLHZrojUhmQVKxzzB5pa9dihhaj)

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Let $k4_exchsort : \iota \Rightarrow \iota$ be given. Let $k5_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k3_tarski : \iota \Rightarrow \iota$ be given. Let $k1_ordinal1 : \iota \Rightarrow \iota$ be given. Let $np_0 : \iota$ be given. Let $np_1 : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k3_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_exchsort : \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (k3_tarski (k1_ordinal1 X0) = X0) \quad (2)$$

Assume the following.

$$v1_xboole_0 np_0 \quad (3)$$

Assume the following.

$$k1_ordinal1 np_0 = np_1 \quad (4)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (5)$$

Assume the following.

$$\forall X0.k5_afinsq_1 X0 = k3_afinsq_1 X0 \quad (6)$$

Assume the following.

$$\forall X0.(v5_ordinal1 (k3_afinsq_1 X0)) \wedge (v1_finset_1 (k3_afinsq_1 X0)) \quad (7)$$

Assume the following.

$$\forall X0.(v1_relat_1 (k3_afinsq_1 X0)) \wedge (v1_funct_1 (k3_afinsq_1 X0)) \quad (8)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_exhsort X0))) \Rightarrow (k4_exhsort X0 = k1_funct_1 X0 (k3_tarski (k9_xtuple_0 X0))) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow ((X1 = k5_afinsq_1 X0) \Leftrightarrow ((k9_xtuple_0 X1 = np_1) \wedge (k1_funct_1 X1 k6_numbers = X0))) \quad (10)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (v3_ordinal1 X0) \quad (11)$$

Assume the following.

$$\forall X0.((v5_ordinal1 X0) \wedge ((v1_relat_1 X0) \wedge (v1_funct_1 X0))) \Rightarrow ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_exhsort X0))) \quad (12)$$

Theorem 1 $\forall X0.k4_exhsort (k5_afinsq_1 X0) = X0.$