

t74_exchsort (TM- cHv7XQW7ers8m4M32YGp4m9WzHAJe5tu9)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v3_orders_2 : \iota \Rightarrow o$ be given. Let $v4_orders_2 : \iota \Rightarrow o$ be given. Let $v5_orders_2 : \iota \Rightarrow o$ be given. Let $v16_waybel_0 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_exchsort : \iota \Rightarrow o$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_exchsort : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Let $k10_funct_7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((\neg v2_struct_0 X2) \wedge ((v3_orders_2 \\ & X2) \wedge ((v4_orders_2 X2) \wedge (v5_orders_2 X2) \wedge ((v16_waybel_0 X2) \wedge \\ & (l1_orders_2 X2)))))) \Rightarrow (\forall X3. ((v1_relat_1 X3) \wedge ((v5_relat_1 \\ & X3 (u1_struct_0 X2)) \wedge ((v1_funct_1 X3) \wedge (v1_exchsort X3)))) \Rightarrow (\\ & ((k4_tarski X0 X1 \in k6_exchsort X2 X3) \wedge (v1_finset_1 (k6_exchsort \\ & X2 X3))) \Rightarrow (k1_card_1 (k6_exchsort X2 (k10_funct_7 X3 X0 X1)) \in k1_card_1 \\ & (k6_exchsort X2 X3)))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. (v7_ordinal1 X0) \Rightarrow (\forall X1. (v7_ordinal1 X1) \Rightarrow ((X0 \in X1) \Leftrightarrow (\neg r1_xxreal_0 X1 X0))) \tag{2}$$

Assume the following.

$$\forall X0. (v1_finset_1 X0) \Rightarrow (k5_card_1 X0 = k1_card_1 X0) \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. ((v1_relat_1 X1) \wedge ((v5_relat_1 X1 X0) \wedge (v1_funct_1 X1))) \Rightarrow (v5_relat_1 (k10_funct_7 X1 X2 X3) X0) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v1_finset_1 X0)))\Rightarrow(v1_finset_1 (k10_funct_7 X0 X1 X2)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2_struct_0 X0)\wedge((v3_orders_2 X0)\wedge((v4_orders_2 X0)\wedge((v5_orders_2 X0)\wedge((v16_waybel_0 X0)\wedge(l1_orders_2 X0))))))\wedge((v1_relat_1 X1)\wedge((v5_relat_1 X1 (u1_struct_0 X0))\wedge((v1_funct_1 X1)\wedge((v1_finset_1 X1)\wedge(v1_exhsort X1))))))\Rightarrow(v1_finset_1 (k6_exhsort X0 X1)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1_relat_1 X0)\wedge(v1_funct_1 X0))\Rightarrow((v1_relat_1 (k10_funct_7 X0 X1 X2))\wedge(v1_funct_1 (k10_funct_7 X0 X1 X2))) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v1_exhsort X0)))\Rightarrow(v1_exhsort (k10_funct_7 X0 X1 X2)) \quad (8)$$

Assume the following.

$$\forall X0.(v1_finset_1 X0)\Rightarrow(m1_subset_1 (k5_card_1 X0) k4_ordinal1) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.k4_tarski X0 X1 = k2_tarski (k2_tarski X0 X1) (k1_tarski X0) \quad (10)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1)\Rightarrow(v7_ordinal1 X0) \quad (11)$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X2)\wedge((v3_orders_2 X2)\wedge((v4_orders_2 X2)\wedge((v5_orders_2 X2)\wedge((v16_waybel_0 X2)\wedge(l1_orders_2 X2))))))\Rightarrow(\forall X3.((v1_relat_1 X3)\wedge((v5_relat_1 X3 (u1_struct_0 X2))\wedge((v1_funct_1 X3)\wedge((v1_finset_1 X3)\wedge(v1_exhsort X3))))))\Rightarrow(\neg(k4_tarski X0 X1 \in k6_exhsort X2 X3)\wedge(r1_xreal.0 (k5_card_1 (k6_exhsort X2 X3)) (k5_card_1 (k6_exhsort X2 (k10_funct_7 X3 X0 X1))))))$$