

t84\_exchsort (TMZYPzmf-  
Pbg9LTJaWjXrwMYV6tuP2eHZvFY)

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Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k1\_ordinal1 : \iota \Rightarrow \iota$  be given. Let  $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v4\_ordinal1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(v3\_ordinal1 X0) \Rightarrow ((\neg v1\_finset\_1 X0) \Leftrightarrow (r1\_ordinal1 k4\_ordinal1 X0)) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (2)$$

Assume the following.

$$\forall X0.(v3\_ordinal1 X0) \Rightarrow ((\neg(\neg v4\_ordinal1 X0) \wedge (\forall X1.(v3\_ordinal1 X1) \Rightarrow (X0 \neq k1\_ordinal1 X1))) \wedge (\neg(\exists X1.(v3\_ordinal1 X1) \wedge (X0 = k1\_ordinal1 X1)) \wedge (v4\_ordinal1 X0))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1\_subset\_1 X0 X1) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(v3\_ordinal1 X1) \Rightarrow ((X0 \in X1) \Rightarrow (v3\_ordinal1 X0)) \quad (5)$$

Assume the following.

$$(\neg v1\_xboole\_0 k4\_ordinal1) \wedge (v3\_ordinal1 k4\_ordinal1) \quad (6)$$

Assume the following.

$$\forall X0.(v3\_ordinal1 X0) \Rightarrow (\forall X1.(v3\_ordinal1 X1) \Rightarrow ((r1\_ordinal1 X0 X1) \Leftrightarrow (\forall X2.(v3\_ordinal1 X2) \Rightarrow ((X2 \in X0) \Rightarrow (X2 \in X1))))) \quad (7)$$

Assume the following.

$$\forall X0.k1\_ordinal1\ X0 = k2\_xboole\_0\ X0\ (k1\_tarSKI\ X0) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((v3\_ordinal1\ X0)\wedge(v3\_ordinal1\ X1))\Rightarrow(\quad (9)$$
$$(r1\_ordinal1\ X0\ X1)\vee(r1\_ordinal1\ X1\ X0))$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v1\_finset\_1\ X0) \quad (10)$$

Assume the following.

$$\forall X0.((v3\_ordinal1\ X0)\wedge((v4\_ordinal1\ X0)\wedge(\neg v1\_xboole\_0\ X0)))\Rightarrow((v3\_ordinal1\ X0)\wedge(\neg v1\_finset\_1\ X0)) \quad (11)$$

**Theorem 1**

$$\forall X0.((v3\_ordinal1\ X0)\wedge(v1\_finset\_1\ X0))\Rightarrow(\forall X1.$$
$$\neg(X1 \in X0)\wedge((X1 \neq k1\_xboole\_0)\wedge(\forall X2.(v3\_ordinal1\ X2)\Rightarrow(\quad$$
$$X1 \neq k1\_ordinal1\ X2))))$$