t23_scmbsort (TMYKu-vWfD3najnVb2weDgr2EKZHTa87gwVX)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_compos\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_scmfsa\_2 : \iota$ be given. Let $k5\_card\_1 : \iota \Rightarrow \iota$ be given. Let $k5\_scmfsa6a : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_scmfsa6a : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_6 : \iota$ be given. Let $np\_\_4 : \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ be given. Let $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $v1\_afinsq\_1 : \iota \Rightarrow o$ be given. Let $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_2 : \iota$ be given. Let $v2\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_compos\_1\ k1\_scmfsa\_2)) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_compos\_1\ k1\_scmfsa\_2)) \Rightarrow (k5\_card\_1\ (k6\_scmfsa6a\ X0\ X1) = np\_\_4)) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_compos\_1\ k1\_scmfsa\_2)) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge ((v4\_relat\_1\ X1\ k5\_numbers) \wedge ((v5\_relat\_1\ X1\ (u1\_compos\_1\ k1\_scmfsa\_2)) \wedge ((\neg v1\_xboole\_0\ X1) \wedge ((v1\_funct\_1\ X1) \wedge ((v1\_finset\_1\ X1) \wedge (v1\_afinsq\_1\ X1)))))) \Rightarrow (k5\_card\_1\ (k5\_scmfsa6a\ X1\ X0) = k2\_nat\_1\ (k5\_card\_1\ X1)\ np\_\_2)) \tag{2}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_4) \wedge (m2\_subset\_1\ np\_\_4\ k1\_numbers\ k5\_numbers)) \wedge ((m1\_subset\_1\ np\_\_4\ k5\_numbers) \wedge (m1\_subset\_1\ np\_\_4\ k1\_numbers)) \tag{3}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_1) \wedge (m2\_subset\_1\ np\_\_1\ k1\_numbers\ k5\_numbers)) \wedge ((m1\_subset\_1\ np\_\_1\ k5\_numbers) \wedge (m1\_subset\_1\ np\_\_1\ k1\_numbers)) \tag{4}$$

Assume the following.

$$k2\_xcmplx\_0\ np\_\_4\ np\_\_2 = np\_\_6 \tag{5}$$

Assume the following.

$$k2\_xcmplx\_0\ np\_\_1\ np\_\_1 = np\_\_2 \tag{6}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k5\_numbers)\wedge(v7\_ordinal1\ X1))\Rightarrow(k2\_nat\_1\ X0\ X1 = k2\_xcmplx\_0\ X0\ X1) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1\ X0)\wedge(v7\_ordinal1\ X1))\Rightarrow(v7\_ordinal1\ (k2\_xcmplx\_0\ X0\ X1)) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ (u1\_compos\_1\ k1\_scmfsa\_2))\wedge(m1\_subset\_1\ X1\ (u1\_compos\_1\ k1\_scmfsa\_2)))\Rightarrow((v1\_relat\_1\ (k6\_scmfsa6a\ X0\ X1))\wedge((v4\_relat\_1\ (k6\_scmfsa6a\ X0\ X1)\ k5\_numbers)\wedge((v5\_relat\_1\ (k6\_scmfsa6a\ X0\ X1)\ (u1\_compos\_1\ k1\_scmfsa\_2))\wedge((\neg v1\_xboole\_0\ (k6\_scmfsa6a\ X0\ X1))\wedge((v1\_funct\_1\ (k6\_scmfsa6a\ X0\ X1))\wedge((v1\_finset\_1\ (k6\_scmfsa6a\ X0\ X1))\wedge(v1\_afinsq\_1\ (k6\_scmfsa6a\ X0\ X1))))))) \tag{10}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \tag{11}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_compos\_1\ k1\_scmfsa\_2))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_compos\_1\ k1\_scmfsa\_2))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_compos\_1\ k1\_scmfsa\_2))\Rightarrow(k5\_card\_1\ (k5\_scmfsa6a\ (k6\_scmfsa6a\ X0\ X1)\ X2) = np\_\_6)))$$