t1_exchsort (TMRpEEeDu-aWxu6QCpKbCFCwExVDkEW3TURZ)

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Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10\_ordinal2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_ordinal3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $v1\_ordinal6 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v3\_ordinal1\ X0) \Rightarrow (\forall X1.(v3\_ordinal1\ X1) \Rightarrow (\forall X2.\ (X2 \in k6\_subset\_1\ X0\ X1) \Leftrightarrow ((r1\_tarski\ X1\ X2) \wedge (X2 \in X0)))) \tag{1}$$

Assume the following.

$$\forall X0.(v3\_ordinal1\ X0) \Rightarrow (\forall X1.(v3\_ordinal1\ X1) \Rightarrow (\forall X2.\ (v3\_ordinal1\ X2) \Rightarrow ((X0 \in X1) \Rightarrow (k10\_ordinal2\ X2\ X0 \in k10\_ordinal2\ X2\ X1)))) \tag{2}$$

Assume the following.

$$\forall X0.(v3\_ordinal1\ X0) \Rightarrow (\forall X1.(v3\_ordinal1\ X1) \Rightarrow ((r1\_ordinal1\ X0\ (k10\_ordinal2\ X0\ X1)) \wedge (r1\_ordinal1\ X1\ (k10\_ordinal2\ X0\ X1)))) \tag{3}$$

Assume the following.

$$\forall X0.(v3\_ordinal1\ X0) \Rightarrow (\forall X1.(v3\_ordinal1\ X1) \Rightarrow (\forall X2.\ (v3\_ordinal1\ X2) \Rightarrow ((k10\_ordinal2\ X0\ X1 \in k10\_ordinal2\ X0\ X2) \Rightarrow (X1 \in X2)))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1\_subset\_1\ X0\ X1) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v3\_ordinal1\ X0) \wedge (v3\_ordinal1\ X1)) \Rightarrow ((r1\_ordinal1\ X0\ X1) \Leftrightarrow (r1\_tarski\ X0\ X1)) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((v3\_ordinal1\ X0)\wedge(v3\_ordinal1\ X1))\Rightarrow(v3\_ordinal1\ (k5\_ordinal3\ X0\ X1)) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.((v3\_ordinal1\ X0)\wedge(v3\_ordinal1\ X1))\Rightarrow(v3\_ordinal1\ (k10\_ordinal2\ X0\ X1)) \tag{8}$$

Assume the following.

$$\forall X0.(v3\_ordinal1\ X0)\Rightarrow(\forall X1.(v3\_ordinal1\ X1)\Rightarrow(\forall X2.(v3\_ordinal1\ X2)\Rightarrow(((r1\_ordinal1\ X1\ X0)\Rightarrow((X2 = k5\_ordinal3\ X0\ X1)\Leftrightarrow(X0 = k10\_ordinal2\ X1\ X2)))\wedge((\neg r1\_ordinal1\ X1\ X0)\Rightarrow((X2 = k5\_ordinal3\ X0\ X1)\Leftrightarrow(X2 = k1\_xboole\_0)))))) \tag{9}$$

Assume the following.

$$\forall X0.(v1\_ordinal6\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow(v3\_ordinal1\ X1)) \tag{10}$$

Assume the following.

$$\forall X0.(v3\_ordinal1\ X0)\Rightarrow(v1\_ordinal6\ X0) \tag{11}$$

Theorem 1

$$\forall X0.(v3\_ordinal1\ X0)\Rightarrow(\forall X1.(v3\_ordinal1\ X1)\Rightarrow(\forall X2.(X2 \in k6\_subset\_1\ (k10\_ordinal2\ X0\ X1)\ X0)\Leftrightarrow(\exists X3.(v3\_ordinal1\ X3)\wedge((X2 = k10\_ordinal2\ X0\ X3)\wedge(X3 \in X1))))))$$