

t12_exchsort (TMFVa- FuQ9nLd9R7fFAE5tp8GuCkhGJDkgQa)

October 27, 2020

Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v2_exchsort : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_ordinal2 : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(X0 \in X1) \Rightarrow (k2_ordinal2 X1 \in X1)) \quad (1)$$

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(X0 \in X1) \Rightarrow (r1_ordinal1 (k2_ordinal2 X1) X0)) \quad (2)$$

Assume the following.

$$\forall X0.v3_ordinal1 (k2_ordinal2 X0) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(v2_exchsort X1 X0) \Leftrightarrow \\ & (\forall X2.(v3_ordinal1 X2) \Rightarrow ((X2 \in k9_xtuple_0 X1) \Rightarrow ((X0 \in k9_xtuple_0 \\ & X1) \wedge (r1_ordinal1 X0 X2)))))) \end{aligned} \quad (4)$$

Theorem 1

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (v2_exchsort X0 (k2_ordinal2 (k9_xtuple_0 X0)))$$