

t46_orders_1

(TMJrGMUPJ8ZtEBCPiL446bsQNq2fBZD2F7u)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $r3_orders_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_relat_2 : \iota \Rightarrow o$ be given. Let $k2_wellord1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_relat_2 : \iota \Rightarrow o$ be given. Let $v8_relat_2 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_orders_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_orders_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(r2_orders_1 X0 X1) \Rightarrow (\\ (v1_relat_2 (k2_wellord1 X0 X1)) \wedge ((v4_relat_2 (k2_wellord1 X0 \\ X1)) \wedge (v8_relat_2 (k2_wellord1 X0 X1)) \wedge ((v1_partfun1 (k2_wellord1 \\ X0 X1) X1) \wedge (m1_subset_1 (k2_wellord1 X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 \\ X1 X1)))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(r3_orders_1 X0 X1) \Rightarrow (\\ (r1_orders_1 X0 X1) \wedge (r2_orders_1 X0 X1))) \tag{2}$$

Theorem 1

$$\begin{aligned} \forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(r3_orders_1 X0 X1) \Rightarrow (\\ (v1_relat_2 (k2_wellord1 X0 X1)) \wedge ((v4_relat_2 (k2_wellord1 X0 \\ X1)) \wedge (v8_relat_2 (k2_wellord1 X0 X1)) \wedge ((v1_partfun1 (k2_wellord1 \\ X0 X1) X1) \wedge (m1_subset_1 (k2_wellord1 X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 \\ X1 X1)))))))))) \end{aligned}$$