

t1_waybel31
(TMVk55bUTDnXsai7WfBc2ibQoXoJtFBEedk)

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Let $v3_orders_2 : \iota \Rightarrow o$ be given. Let $v4_orders_2 : \iota \Rightarrow o$ be given. Let $v5_orders_2 : \iota \Rightarrow o$ be given. Let $v1_lattice3 : \iota \Rightarrow o$ be given. Let $v3_waybel_3 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $v6_waybel23 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_waybel23 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_waybel31 : \iota \Rightarrow \iota$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_setfam_1 : \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_card_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (r1_tarski (k1_setfam_1 X1) X0) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((v3_ordinal1 X0) \wedge (v3_ordinal1 X1)) \Rightarrow (r1_ordinal1 X0 X1) \Leftrightarrow (r1_tarski X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. ((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 X0) \wedge ((v1_lattice3 X0) \wedge ((v3_waybel_3 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow (v1_card_1 (k1_waybel31 X0)) \quad (3)$$

Assume the following.

$$\forall X0. v1_card_1 (k1_card_1 X0) \quad (4)$$

Assume the following.

$$\forall X0. ((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 X0) \wedge ((v1_lattice3 X0) \wedge ((v3_waybel_3 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow (k1_waybel31 X0 = k1_setfam_1 (ReplSep (toset (\lambda X1 : \iota. (v6_waybel23 X1 X0) \wedge (m1_waybel23 X1 X0))) (\lambda X1 : \iota. True) (\lambda X1 : \iota. k1_card_1 X1))) \quad (5)$$

Assume the following.

$$\forall X0. (v1_card_1 X0) \Rightarrow (v3_ordinal1 X0) \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\ & X0) \wedge ((v1_lattice3 X0) \wedge ((v3_waybel_3 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow \\ & (\forall X1.((v6_waybel23 X1 X0) \wedge (m1_waybel23 X1 X0)) \Rightarrow (r1_ordinal1 \\ & (k1_waybel31 X0) (k1_card_1 X1))) \end{aligned}$$