

t16_zf_refle

(TMXVjJZfWqp5Pn5ULJW4s8j2KPQg6m6ZVJ8)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_classes2 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v2_relat_1 : \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_zf_refle : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_zf_refle : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_zf_refle : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_tarski : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_card_3 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (r1_tarski X0 (k3_tarski X1)) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1_xboole_0 X0) \wedge (v1_classes2 X0)) \Rightarrow (\forall X1. \\ & ((v3_ordinal1 X1) \wedge (m1_subset_1 X1 X0)) \Rightarrow (\forall X2. ((v1_relat_1 \\ & X2) \wedge ((v2_relat_1 X2) \wedge ((v5_relat_1 X2 X0) \wedge ((v5_ordinal1 X2) \wedge \\ & ((v1_funct_1 X2) \wedge (v1_zf_refle X2 X0)))))) \Rightarrow (X1 \in k9_xtuple_0 X2))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v1_xboole_0 X0) \wedge (v1_classes2 \\ & X0)) \wedge (((v1_relat_1 X1) \wedge ((v2_relat_1 X1) \wedge ((v5_relat_1 X1 X0) \wedge \\ & ((v5_ordinal1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_zf_refle X1 X0)))))) \wedge \\ & ((v3_ordinal1 X2) \wedge (m1_subset_1 X2 X0))) \Rightarrow (k5_zf_refle X0 X1 X2 = \\ & k1_funct_1 X1 X2) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v1_xboole_0 X0) \wedge (v1_classes2 X0)) \wedge \\ & ((v1_relat_1 X1) \wedge ((v2_relat_1 X1) \wedge ((v5_relat_1 X1 X0) \wedge ((v5_ordinal1 \\ & X1) \wedge ((v1_funct_1 X1) \wedge (v1_zf_refle X1 X0)))))) \Rightarrow (k4_zf_refle \\ & X0 X1 = k3_card_3 X1) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (k3_card_3 X0 = k3_tarski (k10_xtuple_0 X0)) \quad (5)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.(X1 = k10_xtuple_0 X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.(X3 \in k9_xtuple_0 X0) \wedge (X2 = k1_funct_1 X0 X3)))) \quad (6)$$

Theorem 1

$$\forall X0.((\neg v1_xboole_0 X0) \wedge (v1_classes2 X0)) \Rightarrow (\forall X1. ((v3_ordinal1 X1) \wedge (m1_subset_1 X1 X0)) \Rightarrow (\forall X2. ((v1_relat_1 X2) \wedge ((v2_relat_1 X2) \wedge ((v5_relat_1 X2 X0) \wedge ((v5_ordinal1 X2) \wedge ((v1_funct_1 X2) \wedge (v1_zf_refle X2 X0)))))) \Rightarrow (r1_tarski (k5_zf_refle X0 X2 X1) (k4_zf_refle X0 X2))))))$$