

t11_zf_refle (TMd-
mUec9uc5R7dgkyHSSmpWqqtcsGFkgEbQ)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_ordinal2 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k3_card_3 : \iota \Rightarrow \iota$ be given. Let $k6_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k3_tarski : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow (r1_tarski (k10_xtuple_0 (k6_relat_1 X0 X1)) (k10_xtuple_0 X1)) \quad (1)$$

Assume the following.

$$\forall X0. (\forall X1. (X1 \in X0) \Rightarrow (v3_ordinal1 X1)) \Rightarrow (v3_ordinal1 (k3_tarski X0)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow ((v1_relat_1 (k6_relat_1 X0 X1)) \wedge (v1_funct_1 (k6_relat_1 X0 X1))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow (v1_relat_1 (k6_relat_1 X0 X1)) \quad (5)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow ((v1_ordinal2 X0) \Leftrightarrow (\exists X1. (v3_ordinal1 X1) \wedge (r1_tarski (k10_xtuple_0 X0 X1)))) \quad (6)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (k3_card_3 X0 = k3_tarski (k10_xtuple_0 X0)) \quad (7)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (8)$$

Assume the following.

$$\forall X0. (v3_ordinal1 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 X0) \Rightarrow (v3_ordinal1 X1)) \quad (9)$$

Theorem 1

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v5_ordinal1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_ordinal2 X1)))) \Rightarrow (v3_ordinal1 (k3_card_3 (k6_relat_1 X0 X1)))$$