

t6_card_5 (TM-
bqZQV4XM5vMeeswCv9eNUrAtd8AqQmFHQ)

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Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_ordinal2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_ordinal2 : \iota \Rightarrow \iota$ be given. Let $k2_wellord2 : \iota \Rightarrow \iota$ be given. Let $k1_wellord2 : \iota \Rightarrow \iota$ be given. Let $k2_ordinal1 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_ordinal2 : \iota \Rightarrow o$ be given. Let $k3_wellord1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_ordinal2 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal2 : \iota \Rightarrow \iota$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(r1_tarski X1 X0) \Rightarrow (k2_ordinal1 X1 = X1)) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.\neg(r1_tarski X1 X0) \wedge (\\ & \quad \forall X2.((v1_relat_1 X2) \wedge ((v1_funct_1 X2) \wedge ((v5_ordinal1 \\ & \quad X2) \wedge (v1_ordinal2 X2)))) \Rightarrow (\neg(X2 = k3_wellord1 (k1_wellord2 (k2_wellord2 \\ & \quad (k1_wellord2 X1)))) (k1_wellord2 X1)) \wedge ((v2_ordinal2 X2) \wedge ((k9_xtuple_0 \\ & \quad X2 = k2_wellord2 (k1_wellord2 X1)) \wedge (k10_xtuple_0 X2 = X1)))))) \quad (2) \end{aligned}$$

Assume the following.

$$\forall X0.\forall X1.((v3_ordinal1 X0) \wedge (v3_ordinal1 X1)) \Rightarrow (r2_ordinal2 X0 X0) \quad (3)$$

Assume the following.

$$\exists X0.(v1_relat_1 X0) \wedge (v1_funct_1 X0) \quad (4)$$

Assume the following.

$$\forall X0.v3_ordinal1 (k3_ordinal2 X0) \quad (5)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (v3_ordinal1 (k2_wellord2 X0)) \quad (6)$$

Assume the following.

$$\forall X0.v1_relat_1 (k1_wellord2 X0) \quad (7)$$

Assume the following.

$$\forall X0.((v5_ordinal1 X0) \wedge ((v1_relat_1 X0) \wedge (v1_funct_1 X0))) \Rightarrow (k4_ordinal2 X0 = k3_ordinal2 (k10_xtuple_0 X0)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(v3_ordinal1 X1) \Rightarrow ((X1 = k3_ordinal2 X0) \Leftrightarrow ((r1_tarski (k2_ordinal1 X0) X1) \wedge (\forall X2.(v3_ordinal1 X2) \Rightarrow ((r1_tarski (k2_ordinal1 X0) X2) \Rightarrow (r1_ordinal1 X1 X2)))))) \quad (9)$$

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow ((r2_ordinal2 X0 X1) \Leftrightarrow (\exists X2.((v5_ordinal1 X2) \wedge ((v1_relat_1 X2) \wedge ((v1_funct_1 X2) \wedge (v1_ordinal2 X2)))) \wedge ((k9_xtuple_0 X2 = X1) \wedge ((r1_tarski (k10_xtuple_0 X2) X0) \wedge ((v2_ordinal2 X2) \wedge (X0 = k4_ordinal2 X2)))))))) \quad (10)$$

Theorem 1

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(r1_tarski X1 X0) \Rightarrow (r2_ordinal2 (k3_ordinal2 X1) (k2_wellord2 (k1_wellord2 X1))))$$