

t58_afinsq_1 (TMGVpWsLHJn-
RRj4ZSdhRKhN7goQmkM8atK4)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. 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 $v1_finset_1 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_ordinal4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. (v1_relat_1 X2) \Rightarrow ((r1_tarski X0 X1) \Rightarrow (k5_relat_1 (k5_relat_1 X2 X1) X0 = k5_relat_1 X2 X0)) \quad (1)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v5_ordinal1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finset_1 X0)))) \Rightarrow (\forall X1. ((v1_relat_1 X1) \wedge ((v5_ordinal1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finset_1 X1)))) \Rightarrow (k5_relat_1 (k1_ordinal4 X0 X1) (k2_afinsq_1 X0) = X0)) \quad (2)$$

Assume the following.

$$\forall X0. (v7_ordinal1 X0) \Rightarrow (\forall X1. (v7_ordinal1 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \Leftrightarrow (r1_ordinal1 X0 X1))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((v3_ordinal1 X0) \wedge (v3_ordinal1 X1)) \Rightarrow ((r1_ordinal1 X0 X1) \Leftrightarrow (r1_tarski X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v5_ordinal1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finset_1 X0)))) \Rightarrow (k2_afinsq_1 X0 = k9_xtuple_0 X0) \quad (5)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v5_ordinal1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finset_1 X0)))) \Rightarrow (v7_ordinal1 (k9_xtuple_0 X0)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_relat_1 X0)\wedge((v5_ordinal1 X0)\wedge(v1_funct_1 X0)))\wedge((v1_relat_1 X1)\wedge((v5_ordinal1 X1)\wedge(v1_funct_1 X1))))\Rightarrow((v1_relat_1 (k1_ordinal4 X0 X1)\wedge((v5_ordinal1 (k1_ordinal4 X0 X1)\wedge(v1_funct_1 (k1_ordinal4 X0 X1)))))) \quad (7)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0)\Rightarrow(v3_ordinal1 X0) \quad (8)$$

Theorem 1

$$\forall X0.(v7_ordinal1 X0)\Rightarrow(\forall X1.((v1_relat_1 X1)\wedge((v5_ordinal1 X1)\wedge((v1_funct_1 X1)\wedge(v1_finset_1 X1))))\Rightarrow(\forall X2.((v1_relat_1 X2)\wedge((v5_ordinal1 X2)\wedge((v1_funct_1 X2)\wedge(v1_finset_1 X2))))\Rightarrow((r1_xxreal_0 X0 (k2_afinsq_1 X1))\Rightarrow(k5_relat_1 (k1_ordinal4 X1 X2) X0 = k5_relat_1 X1 X0))))$$