

t2_pre_circ
(TMd6rY7stfZAMurAv4yYaR53f5QBR9CcNRK)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k13_finseq_1 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_card_3 : \iota \Rightarrow \iota$ be given. Let $m1_finseq_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\forall X0.k1_xboole_0 \in k13_finseq_1 X0 \quad (2)$$

Assume the following.

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

Assume the following.

$$k4_card_3 k1_xboole_0 = k1_tarski k1_xboole_0 \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_2 X1 X0) \Rightarrow (\forall X2.(m2_finseq_2 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (5)$$

Assume the following.

$$\forall X0.k3_finseq_2 X0 = k13_finseq_1 X0 \quad (6)$$

Assume the following.

$$\forall X0.v1_xboole_0 (k6_finseq_1 X0) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xboole_0 X0)\wedge(v1_relat_1 X1))\Rightarrow((v1_xboole_0 (k3_relat_1 X0 X1))\wedge(v1_relat_1 (k3_relat_1 X0 X1))) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X1)\wedge((v4_relat_1 X1 X0)\wedge(v1_funct_1 X1)\wedge(v1_partfun1 X1 X0)))\Rightarrow((v1_relat_1 (k6_finseq_2 X0 X1))\wedge((v4_relat_1 (k6_finseq_2 X0 X1) (k3_finseq_2 X0))\wedge((v1_funct_1 (k6_finseq_2 X0 X1))\wedge(v1_partfun1 (k6_finseq_2 X0 X1) (k3_finseq_2 X0)))))) \quad (9)$$

Assume the following.

$$\forall X0.m1_finseq_2 (k3_finseq_2 X0) X0 \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X1)\wedge((v4_relat_1 X1 X0)\wedge(v1_funct_1 X1)\wedge(v1_partfun1 X1 X0)))\Rightarrow(\forall X2.((v1_relat_1 X2)\wedge((v4_relat_1 X2 (k3_finseq_2 X0))\wedge((v1_funct_1 X2)\wedge(v1_partfun1 X2 (k3_finseq_2 X0))))))\Rightarrow((X2 = k6_finseq_2 X0 X1)\Leftrightarrow(\forall X3.(m2_finseq_2 X3 X0 (k3_finseq_2 X0))\Rightarrow(k1_funct_1 X2 X3 = k4_card_3 (k3_relat_1 X3 X1)))))) \quad (11)$$

Theorem 1

$$\forall X0.\forall X1.((v1_relat_1 X1)\wedge((v4_relat_1 X1 X0)\wedge(v1_funct_1 X1)\wedge(v1_partfun1 X1 X0)))\Rightarrow(k1_funct_1 (k6_finseq_2 X0 X1) (k6_finseq_1 X0) = k1_tarski k1_xboole_0)$$