

t32_valued_1
(TMQwrCYv6fu6s2PVe4fXvTeq31tFy9GSSBa)

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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 $k5_numbers : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k62_valued_1 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $v2_membered : \iota \Rightarrow o$ be given. Let $v2_xxreal_2 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k1_xxreal_2 : \iota \Rightarrow \iota$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $v4_membered : \iota \Rightarrow o$ be given. Let $v1_xxreal_2 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v5_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((\neg v1_xboole_0 X0) \wedge (v1_finset_1 X0)))))) \Rightarrow (k62_valued_1 X0 \in k1_relset_1 k5_numbers X0) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (2)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v4_relat_1 X1 X0)) \Rightarrow (k1_relset_1 X0 X1 = k9_xtuple_0 X1) \quad (4)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge (v1_finset_1 X0)) \Rightarrow (v1_finset_1 (k9_xtuple_0 X0)) \quad (5)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge (v4_relat_1 X0 k5_numbers)) \Rightarrow (v6_membered (k9_xtuple_0 X0)) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2_membered\ X0)\wedge(v2_xxreal_2\ X0))\Rightarrow(\forall X1. \\ & (v1_xxreal_0\ X1)\Rightarrow((X1 = k1_xxreal_2\ X0)\Leftrightarrow((X1 \in X0)\wedge(\forall X2. \\ & (v1_xxreal_0\ X2)\Rightarrow((X2 \in X0)\Rightarrow(r1_xxreal_0\ X2\ X1)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.(v1_xboole_0\ X0)\Leftrightarrow(\forall X1.\neg X1 \in X0) \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1\ X0)\wedge((v4_relat_1\ X0\ k5_numbers)\wedge((v1_funct_1 \\ & X0)\wedge((\neg v1_xboole_0\ X0)\wedge(v1_finset_1\ X0))))))\Rightarrow(k62_valued_1 \\ & X0 = k1_xxreal_2\ (k1_relset_1\ k5_numbers\ X0)) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.(v3_membered\ X0)\Rightarrow(v2_membered\ X0) \quad (10)$$

Assume the following.

$$\forall X0.(v4_membered\ X0)\Rightarrow(v3_membered\ X0) \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2_membered\ X0)\wedge((\neg v1_xboole_0\ X0)\wedge(v1_finset_1 \\ & X0)))\Rightarrow((v2_membered\ X0)\wedge((\neg v1_xboole_0\ X0)\wedge((v1_xxreal_2\ X0)\wedge \\ & (v2_xxreal_2\ X0)))) \end{aligned} \quad (12)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(v1_xxreal_0\ X0) \quad (13)$$

Assume the following.

$$\forall X0.(v5_membered\ X0)\Rightarrow(v4_membered\ X0) \quad (14)$$

Assume the following.

$$\forall X0.(v6_membered\ X0)\Rightarrow(v5_membered\ X0) \quad (15)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v6_membered\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ X0)\Rightarrow \\ & (v7_ordinal1\ X1)) \end{aligned} \quad (16)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_relat_1\ X0)\wedge((v4_relat_1\ X0\ k5_numbers)\wedge((v1_funct_1 \\ & X0)\wedge((\neg v1_xboole_0\ X0)\wedge(v1_finset_1\ X0))))))\Rightarrow(\forall X1.(m2_subset_1 \\ & X1\ k1_numbers\ k5_numbers)\Rightarrow((X1 \in k1_relset_1\ k5_numbers\ X0)\Rightarrow(\\ & r1_xxreal_0\ X1\ (k62_valued_1\ X0)))) \end{aligned}$$