

t28_rvsum_2
(TMKnybQMigkir96PXruKysV4hafcT8yGvUh)

October 27, 2020

Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k11_rvsum_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_numbers : \iota$ be given. Let $k5_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_card_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_rvsum_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_rvsum_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $v1_valued_0 : \iota \Rightarrow o$ be given. Let $k24_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $k4_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (\forall X2. \\ & ((v3_card_1 X2 X0) \wedge (m2_finseq_1 X2 k2_numbers)) \Rightarrow (k11_rvsum_2 \\ & (k2_finseq_2 X0 X1) X2 = k10_rvsum_2 X0 X2 X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (\forall X2. \\ & (v1_xcmplx_0 X2) \Rightarrow (k9_rvsum_2 (k2_finseq_2 X0 X2) X1 = k5_finseq_2 \\ & k2_numbers X0 (k5_binop_2 X1 X2)))) \end{aligned} \quad (2)$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge ((\\ & v1_finseq_1 X0) \wedge (v1_valued_0 X0)))) \wedge (v1_xcmplx_0 X1)) \Rightarrow (k9_rvsum_2 \\ & X0 X1 = k24_valued_1 X0 X1) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0)\wedge((v7_ordinal1 X1)\wedge(m1_subset_1 X2 X0)))\Rightarrow(k5_finseq_2 X0 X1 X2 = k2_finseq_2 X1 X2) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v7_ordinal1 X0)\wedge(((v3_card_1 X1 X0)\wedge(m1_finseq_1 X1 k2_numbers))\wedge(v1_xcmplx_0 X2)))\Rightarrow(k10_rvsum_2 X0 X1 X2 = k24_valued_1 X1 X2) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(v7_ordinal1 X0)\Rightarrow((v1_relat_1 (k2_finseq_2 X0 X1))\wedge((v1_funct_1 (k2_finseq_2 X0 X1))\wedge((v3_card_1 (k2_finseq_2 X0 X1) X0)\wedge(v1_finseq_1 (k2_finseq_2 X0 X1)))))) \quad (8)$$

Assume the following.

$$\neg v1_xboole_0 k2_numbers \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_2 X1 X0)\Rightarrow(\forall X2.(m2_finseq_2 X2 X0 X1)\Rightarrow(m2_finseq_1 X2 X0)) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0)\wedge((v7_ordinal1 X1)\wedge(m1_subset_1 X2 X0)))\Rightarrow(m2_finseq_2 (k5_finseq_2 X0 X1 X2) X0 (k4_finseq_2 X1 X0)) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(v7_ordinal1 X0)\Rightarrow(m1_finseq_2 (k4_finseq_2 X0 X1) X1) \quad (12)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0)\Leftrightarrow(X0 \in k2_numbers) \quad (13)$$

Assume the following.

$$\forall X0.(m1_finseq_1 X0 k2_numbers)\Rightarrow(v1_valued_0 X0) \quad (14)$$

Theorem 1

$$\forall X0.(v7_ordinal1 X0)\Rightarrow(\forall X1.(v1_xcmplx_0 X1)\Rightarrow(\forall X2.(v1_xcmplx_0 X2)\Rightarrow(k11_rvsum_2 (k2_finseq_2 X0 X1) (k2_finseq_2 X0 X2) = k5_finseq_2 k2_numbers X0 (k5_binop_2 X1 X2))))$$