

t64_rvsum_1

(TML8wgXJtEBCUFyapd1zPqWV8NAmPYnkwBp)

October 27, 2020

Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k14_rvsum_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k1_numbers : \iota$ be given. Let $k11_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ 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. Let $k11_rvsum_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_rvsum_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k24_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v3_valued_0 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (m2_finseq_2 X2 k1_numbers (k4_finseq_2 X0 k1_numbers)) \Rightarrow (k14_rvsum_1 \\ & (k2_finseq_2 X0 X1) X2 = k11_rvsum_1 X0 X2 X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 X2) \Rightarrow (k10_rvsum_1 (k2_finseq_2 X0 X2) X1 = k5_finseq_2 \\ & k1_numbers X0 (k11_binop_2 X1 X2)))) \end{aligned} \quad (2)$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_2 X1 X0) \Rightarrow (\forall X2.(m2_finseq_2 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0) \wedge ((v7_ordinal1 \\ & X1) \wedge (m1_subset_1 X2 X0))) \Rightarrow (k5_finseq_2 X0 X1 X2 = k2_finseq_2 X1 \\ & X2) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v7_ordinal1\ X0)\wedge((m1_subset_1\ X1\ (k4_finseq_2\ X0\ k1_numbers))\wedge(v1_xreal_0\ X2)))\Rightarrow(k11_rvsum_1\ X0\ X1\ X2 = k24_valued_1\ X1\ X2) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_relat_1\ X0)\wedge((v1_funct_1\ X0)\wedge((v3_valued_0\ X0)\wedge(v1_finseq_1\ X0))))\wedge(v1_xreal_0\ X1))\Rightarrow(k10_rvsum_1\ X0\ X1 = k24_valued_1\ X0\ X1) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1\ X0)\wedge(v1_xreal_0\ X1))\Rightarrow((v1_relat_1\ (k2_finseq_2\ X0\ X1))\wedge((v1_funct_1\ (k2_finseq_2\ X0\ X1))\wedge((v3_valued_0\ (k2_finseq_2\ X0\ X1))\wedge(v1_finseq_1\ (k2_finseq_2\ X0\ X1)))))) \quad (8)$$

Assume the following.

$$\neg v1_xboole_0\ k1_numbers \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1_xboole_0\ X0)\wedge((v7_ordinal1\ X1)\wedge(m1_subset_1\ X2\ X0)))\Rightarrow(m2_finseq_2\ (k5_finseq_2\ X0\ X1\ X2)\ X0\ (k4_finseq_2\ X1\ X0)) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(v7_ordinal1\ X0)\Rightarrow(m1_finseq_2\ (k4_finseq_2\ X0\ X1)\ X1) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(v7_ordinal1\ X0)\Rightarrow((v1_relat_1\ (k2_finseq_2\ X0\ X1))\wedge((v1_funct_1\ (k2_finseq_2\ X0\ X1))\wedge(v1_finseq_1\ (k2_finseq_2\ X0\ X1)))) \quad (12)$$

Assume the following.

$$\forall X0.(v1_xreal_0\ X0)\Leftrightarrow(X0 \in k1_numbers) \quad (13)$$

Theorem 1

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(\forall X1.(v1_xreal_0\ X1)\Rightarrow(\forall X2.(v1_xreal_0\ X2)\Rightarrow(k14_rvsum_1\ (k2_finseq_2\ X0\ X1)\ (k2_finseq_2\ X0\ X2) = k5_finseq_2\ k1_numbers\ X0\ (k11_binop_2\ X1\ X2))))$$