

t61_rvsum_1

(TMPN9pwc7pxvkBjUzyWkWP9eyzPHX3NTGip)

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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. Let $k14_rvsum_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k18_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_numbers : \iota$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_valued_0 : \iota \Rightarrow o$ be given. Let $v2_valued_0 : \iota \Rightarrow o$ be given. Let $v4_valued_0 : \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(((v1_relat_1 X0) \wedge (v1_funct_1 X0) \wedge (v3_valued_0 X0) \wedge (v1_finseq_1 X0))) \wedge ((v1_relat_1 X1) \wedge (v1_funct_1 X1) \wedge (v3_valued_0 X1) \wedge (v1_finseq_1 X1))) \Rightarrow (k14_rvsum_1 X0 X1 = k18_valued_1 X0 X1) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.\exists X1.(v1_relat_1 X1) \wedge ((v4_relat_1 X1 X0) \wedge (v5_relat_1 X1 k3_numbers) \wedge ((v1_funct_1 X1) \wedge ((v1_partfun1 X1 X0) \wedge ((v1_valued_0 X1) \wedge ((v2_valued_0 X1) \wedge ((v3_valued_0 X1) \wedge (v4_valued_0 X1)))))))) \tag{3}$$

Assume the following.

$$\forall X0.\exists X1.(m1_finseq_1 X1 X0) \wedge ((v1_relat_1 X1) \wedge (v4_relat_1 X1 k5_numbers) \wedge ((v5_relat_1 X1 X0) \wedge ((v1_funct_1 X1) \wedge ((v1_xboole_0 X1) \wedge ((v1_finset_1 X1) \wedge (v1_finseq_1 X1)))))) \tag{4}$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \tag{5}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(((v1_relat_1 X1)\wedge((v1_funct_1 \\ X1)\wedge(v1_valued_0 X1)))\wedge((v1_relat_1 X2)\wedge((v4_relat_1 X2 X0)\wedge \\ ((v1_funct_1 X2)\wedge(v1_valued_0 X2))))))\Rightarrow((v1_relat_1 (k18_valued_1 \\ X1 X2))\wedge((v4_relat_1 (k18_valued_1 X1 X2) X0)\wedge(v1_funct_1 (k18_valued_1 \\ X1 X2)))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.k6_finseq_1 X0 = k1_xboole_0 \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v1_valued_0 \\ X0)))\wedge((v1_relat_1 X1)\wedge((v1_funct_1 X1)\wedge(v1_valued_0 X1))))\Rightarrow \\ (k18_valued_1 X0 X1 = k18_valued_1 X1 X0) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xboole_0 X0)\Rightarrow(\forall X1.((v1_relat_1 X1)\wedge(v4_relat_1 \\ X1 X0))\Rightarrow((v1_xboole_0 X1)\wedge((v1_relat_1 X1)\wedge(v4_relat_1 X1 X0)))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge(v3_valued_0 X0))\Rightarrow((v1_relat_1 \\ X0)\wedge(v1_valued_0 X0)) \quad (10)$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge((v3_valued_0 \\ X0)\wedge(v1_finseq_1 X0))))\Rightarrow(k14_rvsum_1 (k6_finseq_1 k1_numbers) \\ X0 = k6_finseq_1 k1_numbers) \end{aligned}$$