

t125_rvsum_1 (TMVQfVx- eaeVrx1zYs2YQT7dQCUs9oGwVyxxt)

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Let $v1_xreal_0 : \iota \Rightarrow o$ 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. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k23_rvsum_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_rvsum_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_rvsum_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k24_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k1_numbers : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge ((v3_valued_0 \\ & X0) \wedge (v1_finseq_1 X0)))) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((v1_funct_1 \\ & X1) \wedge ((v3_valued_0 X1) \wedge (v1_finseq_1 X1)))) \Rightarrow (\forall X2.(v1_xreal_0 \\ & X2) \Rightarrow ((k3_finseq_1 X0 = k3_finseq_1 X1) \Rightarrow (k23_rvsum_1 (k10_rvsum_1 \\ & X0 X2) X1 = k11_binop_2 X2 (k23_rvsum_1 X0 X1)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge ((v3_valued_0 \\ & X0) \wedge (v1_finseq_1 X0)))) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((v1_funct_1 \\ & X1) \wedge ((v3_valued_0 X1) \wedge (v1_finseq_1 X1)))) \Rightarrow (\forall X2.((v1_relat_1 \\ & X2) \wedge ((v1_funct_1 X2) \wedge ((v3_valued_0 X2) \wedge (v1_finseq_1 X2)))) \Rightarrow \\ & (((k3_finseq_1 X0 = k3_finseq_1 X1) \wedge (k3_finseq_1 X1 = k3_finseq_1 \\ & X2)) \Rightarrow (k23_rvsum_1 (k4_rvsum_1 X0 X1) X2 = k9_binop_2 (k23_rvsum_1 \\ & X0 X2) (k23_rvsum_1 X1 X2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((v1_funct_1 \\ & X1) \wedge ((v3_valued_0 X1) \wedge (v1_finseq_1 X1)))) \Rightarrow (k3_finseq_1 (k10_rvsum_1 \\ & X1 X0) = k3_finseq_1 X1)) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge((v3_valued_0 X0)\wedge(v1_finseq_1 X0))))\wedge(v1_xreal_0 X1))\Rightarrow(k10_rvsum_1 X0 X1 = k24_valued_1 X0 X1) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v3_valued_0 X0)))\wedge(v1_xreal_0 X1))\Rightarrow((v1_relat_1 (k24_valued_1 X0 X1))\wedge(v1_funct_1 (k24_valued_1 X0 X1))\wedge(v3_valued_0 (k24_valued_1 X0 X1))) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0)\Rightarrow((v1_funct_1 X1)\wedge(v1_finseq_1 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers X0)))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge((v3_valued_0 X0)\wedge(v1_finseq_1 X0))))\wedge(v1_xreal_0 X1))\Rightarrow(m2_finseq_1 (k10_rvsum_1 X0 X1) k1_numbers) \quad (7)$$

Theorem 1

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(\forall X1.(v1_xreal_0 X1)\Rightarrow(\forall X2.((v1_relat_1 X2)\wedge((v1_funct_1 X2)\wedge((v3_valued_0 X2)\wedge(v1_finseq_1 X2))))\Rightarrow(\forall X3.((v1_relat_1 X3)\wedge((v1_funct_1 X3)\wedge((v3_valued_0 X3)\wedge(v1_finseq_1 X3))))\Rightarrow(\forall X4.((v1_relat_1 X4)\wedge((v1_funct_1 X4)\wedge((v3_valued_0 X4)\wedge(v1_finseq_1 X4))))\Rightarrow(((k3_finseq_1 X2 = k3_finseq_1 X3)\wedge(k3_finseq_1 X3 = k3_finseq_1 X4))\Rightarrow(k23_rvsum_1 (k4_rvsum_1 (k10_rvsum_1 X2 X0) (k10_rvsum_1 X3 X1)) X4 = k9_binop_2 (k11_binop_2 X0 (k23_rvsum_1 X2 X4)) (k11_binop_2 X1 (k23_rvsum_1 X3 X4))))))))))$$