

t7_topreal7

(TMTWqTFeJe5z8aSCCuQkMvH9jnzi8jL7oma)

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Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k8_rvsum_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_rvsum_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k18_rvsum_1 : \iota \Rightarrow \iota$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ 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 $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v3_valued_0 : \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m2_finseq_1 X0 k1_numbers) \Rightarrow (\forall X1.(m2_finseq_1 \\ & X1 k1_numbers) \Rightarrow (((k3_finseq_1 X0 = k3_finseq_1 X1) \vee (k4_finseq_1 \\ & X0 = k4_finseq_1 X1)) \Rightarrow ((k3_finseq_1 (k4_rvsum_1 X0 X1) = k3_finseq_1 \\ & X0) \wedge (k4_finseq_1 (k4_rvsum_1 X0 X1) = k4_finseq_1 X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_finseq_1 X0 k1_numbers) \Rightarrow (\forall X1.(m2_finseq_1 \\ & X1 k1_numbers) \Rightarrow ((k3_finseq_1 X0 = k3_finseq_1 X1) \Rightarrow ((k3_finseq_1 \\ & (k4_rvsum_1 X0 X1) = k3_finseq_1 X0) \wedge ((k3_finseq_1 (k8_rvsum_1 \\ & X0 X1) = k3_finseq_1 X0) \wedge ((k18_rvsum_1 (k4_rvsum_1 X0 X1) = k7_real_1 \\ & (k18_rvsum_1 X0) (k18_rvsum_1 X1)) \wedge (k18_rvsum_1 (k8_rvsum_1 \\ & X0 X1) = k9_real_1 (k18_rvsum_1 X0) (k18_rvsum_1 X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_finseq_1 X0 k1_numbers) \Rightarrow (\forall X1.(m2_finseq_1 \\ & X1 k1_numbers) \Rightarrow ((k3_finseq_1 X0 = k3_finseq_1 X1) \Rightarrow (X0 = k4_rvsum_1 \\ & (k8_rvsum_1 X0 X1) X1))) \end{aligned} \quad (3)$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0)\Rightarrow((v1_funct_1 X1)\wedge((v1_finseq_1 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers X0)))))) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow((v1_relat_1 X1)\wedge((v1_funct_1 X1)\wedge(v1_finseq_1 X1))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge((v3_valued_0 X0)\wedge(v1_finseq_1 X0))))\wedge((v1_relat_1 X1)\wedge((v1_funct_1 X1)\wedge((v3_valued_0 X1)\wedge(v1_finseq_1 X1)))))\Rightarrow(m2_finseq_1 (k8_rvsum_1 X0 X1) k1_numbers) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge((v3_valued_0 X0)\wedge(v1_finseq_1 X0))))\wedge((v1_relat_1 X1)\wedge((v1_funct_1 X1)\wedge((v3_valued_0 X1)\wedge(v1_finseq_1 X1)))))\Rightarrow(k4_rvsum_1 X0 X1 = k4_rvsum_1 X1 X0) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow(v5_relat_1 X1 X0) \quad (9)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge(v5_relat_1 X0 k1_numbers))\Rightarrow((v1_relat_1 X0)\wedge(v3_valued_0 X0)) \quad (10)$$

Theorem 1

$$\forall X0.(m2_finseq_1 X0 k1_numbers)\Rightarrow(\forall X1.(m2_finseq_1 X1 k1_numbers)\Rightarrow(((k3_finseq_1 X0 = k3_finseq_1 X1)\vee(k4_finseq_1 X0 = k4_finseq_1 X1))\Rightarrow((k3_finseq_1 (k8_rvsum_1 X0 X1) = k3_finseq_1 X0)\wedge(k4_finseq_1 (k8_rvsum_1 X0 X1) = k4_finseq_1 X0))))$$