

t10_matrixr1
(TMdQt2jJMR4LEY6mo6N8bWCJCh7QyUXsvVk)

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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 $k8_rvsum_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_euclid : \iota \Rightarrow \iota$ be given. Let $k6_rvsum_1 : \iota \Rightarrow \iota$ be given. Let $k4_rvsum_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m2_finseq_1 X0 k1_numbers) \Rightarrow (\forall X1.(m2_finseq_1 \\ X1 k1_numbers) \Rightarrow ((k3_finseq_1 X0 = k3_finseq_1 X1) \Rightarrow (k8_rvsum_1 \\ (k8_rvsum_1 X0 X1) = k8_rvsum_1 X1 X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(m2_finseq_1 X0 k1_numbers) \Rightarrow (k8_rvsum_1 X0 (k5_euclid \\ (k3_finseq_1 X0)) = X0) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(m2_finseq_1 X0 k1_numbers) \Rightarrow (\forall X1.(m2_finseq_1 \\ X1 k1_numbers) \Rightarrow ((k3_finseq_1 X0 = k3_finseq_1 X1) \Rightarrow (k8_rvsum_1 \\ X0 X1 = k4_rvsum_1 X0 (k6_rvsum_1 X1)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge ((v3_valued_0 \\ X0) \wedge (v1_finseq_1 X0)))) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((v1_funct_1 \\ X1) \wedge ((v3_valued_0 X1) \wedge (v1_finseq_1 X1)))) \Rightarrow (\forall X2.((v1_relat_1 \\ X2) \wedge ((v1_funct_1 X2) \wedge ((v3_valued_0 X2) \wedge (v1_finseq_1 X2)))) \Rightarrow \\ (k8_rvsum_1 X0 (k8_rvsum_1 X1 X2) = k4_rvsum_1 (k8_rvsum_1 X0 X1 \\ X2))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.(m2_finseq_1 X0 k1_numbers) \Rightarrow ((k4_rvsum_1 X0 (k6_rvsum_1 X0) = k5_euclid (k3_finseq_1 X0)) \wedge (k8_rvsum_1 X0 X0 = k5_euclid (k3_finseq_1 X0))) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Rightarrow ((v1_funct_1 X1) \wedge ((v1_finseq_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers X0)))))) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0) \Rightarrow ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \quad (8)$$

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

$$\forall X0.(m2_finseq_1 X0 k1_numbers) \Rightarrow (\forall X1.(m2_finseq_1 X1 k1_numbers) \Rightarrow (((k3_finseq_1 X0 = k3_finseq_1 X1) \wedge (k8_rvsum_1 X0 X1 = k5_euclid (k3_finseq_1 X0))) \Rightarrow (X0 = X1)))$$