

t38_matrprob

(TMWjbRZfnyXmz86Mk8bMTMy8sF4wmTdhyWA)

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Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_vectsp_1 : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k22_rvsum_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k13_fvsum_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ 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 $v1_relat_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Rightarrow (m2_finseq_2 X1 X0 (k4_finseq_2 (k3_finseq_1 X1) X0)) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (m2_finseq_2 X1 k1_numbers (k4_finseq_2 X0 k1_numbers)) \Rightarrow (\forall X2. \\ & (m2_finseq_2 X2 k1_numbers (k4_finseq_2 X0 k1_numbers)) \Rightarrow (\forall X3. \\ & (m2_finseq_2 X3 (u1_struct_0 k2_vectsp_1) (k4_finseq_2 X0 (u1_struct_0 \\ & k2_vectsp_1)))) \Rightarrow (\forall X4. (m2_finseq_2 X4 (u1_struct_0 k2_vectsp_1) \\ & (k4_finseq_2 X0 (u1_struct_0 k2_vectsp_1)))) \Rightarrow (((X1 = X3) \wedge (X2 = \\ & X4)) \Rightarrow (k22_rvsum_1 X1 X2 = k13_fvsum_1 k2_vectsp_1 X3 X4)))))) \quad (2) \end{aligned}$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Rightarrow ((v1_funct_1 X1) \wedge (v1_finseq_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers X0)))) \quad (3)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow (m2_subset_1 (k3_finseq_1 X0) k1_numbers k5_numbers) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (v1_relat_1 X2) \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m2_finseq_1 X0 k1_numbers) \Rightarrow (\forall X1.(m2_finseq_1 \\ & X1 k1_numbers) \Rightarrow (\forall X2.(m2_finseq_1 X2 (u1_struct_0 k2_vectsp_1)) \Rightarrow \\ & (\forall X3.(m2_finseq_1 X3 (u1_struct_0 k2_vectsp_1)) \Rightarrow (((k3_finseq_1 \\ X0 = k3_finseq_1 X1) \wedge ((X0 = X2) \wedge (X1 = X3))) \Rightarrow (k22_rvsum_1 X0 X1 = k13_fvsu1 \\ & k2_vectsp_1 X2 X3)))))) \end{aligned}$$