

t11_matrprob (TM-
bYVe4ZormWngbkGLvGaP6hrvJWpTFJipF)

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Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_matrprob : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_matrix_1 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 \\ & X1))) \Rightarrow (((v1_matrix_1 X1) \wedge (m2_finseq_1 X1 (k3_finseq_2 X0))) \Leftrightarrow \\ & (\exists X2. (v7_ordinal1 X2) \wedge (\forall X3. (m2_subset_1 X3 k1_numbers \\ & k5_numbers) \Rightarrow (\neg (X3 \in k4_finseq_1 X1) \wedge (\forall X4. (m2_finseq_1 \\ & X4 X0) \Rightarrow (\neg (k1_funct_1 X1 X3 = X4) \wedge (k3_finseq_1 X4 = X2))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ & X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (3)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((m1_finseq_1 X1 (k3_finseq_2 \\ & X0)) \wedge (v7_ordinal1 X2)) \Rightarrow (k1_matrprob X0 X1 X2 = k1_funct_1 X1 X2) \end{aligned} \quad (5)$$

Assume the following.

$$(\neg v1_xboole_0 \ k4_ordinal1) \wedge (v3_ordinal1 \ k4_ordinal1) \quad (6)$$

Assume the following.

$$\neg v1_xboole_0 \ k1_numbers \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (m2_finseq_1 \ X1 \ X0) \Rightarrow ((v1_funct_1 \ X1) \wedge (\\ (v1_finseq_1 \ X1) \wedge (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ k5_numbers \\ X0)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. (m1_finseq_1 \ X1 \ X0) \Rightarrow ((v1_relat_1 \ X1) \wedge (\\ (v1_funct_1 \ X1) \wedge (v1_finseq_1 \ X1))) \quad (9)$$

Assume the following.

$$m1_subset_1 \ k5_numbers \ (k1_zfmisc_1 \ k1_numbers) \quad (10)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((m1_finseq_1 \ X1 \ (k3_finseq_2 \\ X0)) \wedge (v7_ordinal1 \ X2)) \Rightarrow (m2_finseq_1 \ (k1_matrprob \ X0 \ X1 \ X2) \ X0) \quad (11)$$

Assume the following.

$$\forall X0. (m1_subset_1 \ X0 \ k4_ordinal1) \Rightarrow (v7_ordinal1 \ X0) \quad (12)$$

Theorem 1

$$\begin{aligned} \forall X0. \forall X1. (m2_finseq_1 \ X1 \ (k3_finseq_2 \ X0)) \Rightarrow ((\exists X2. \\ (v7_ordinal1 \ X2) \wedge (\forall X3. (m2_subset_1 \ X3 \ k1_numbers \ k5_numbers) \Rightarrow \\ ((X3 \in k4_finseq_1 \ X1) \Rightarrow (k3_finseq_1 \ (k1_matrprob \ X0 \ X1 \ X3) = X2)))))) \Leftrightarrow \\ ((v1_matrix_1 \ X1) \wedge (m2_finseq_1 \ X1 \ (k3_finseq_2 \ X0))) \end{aligned}$$