

t9_matrprob
(TMcj5hr4YaEZxdkpjJxroC5Hwy5L3VTgZJ)

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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 $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_matrprob : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k13_finseq_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \neg(X0 \in X1) \wedge (v1_xboole_0 X1) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m2_subset_1 X1 k1_numbers \\ & \quad k5_numbers) \Rightarrow (\forall X2. (v7_ordinal1 X2) \Rightarrow (\forall X3. (m1_subset_1 \\ & \quad X3 X0) \Rightarrow (\forall X4. (m1_subset_1 X4 X0) \Rightarrow (\exists X5. (m2_finseq_1 \\ & \quad X5 X0) \wedge ((k3_finseq_1 X5 = X2) \wedge (\forall X6. (v7_ordinal1 X6) \Rightarrow ((\\ & \quad X6 \in k2_finseq_1 X2) \Rightarrow (((X6 \in k2_finseq_1 X1) \Rightarrow (k1_funct_1 X5 X6 = \\ & \quad X3)) \wedge ((\neg X6 \in k2_finseq_1 X1) \Rightarrow (k1_funct_1 X5 X6 = X4))))))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (3)$$

Assume the following.

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

Assume the following.

$$\forall X0. k3_finseq_2 X0 = k13_finseq_1 X0 \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((m1_finseq_1 X1 (k3_finseq_2 X0)) \wedge (v7_ordinal1 X2)) \Rightarrow (k1_matrprob X0 X1 X2 = k1_funct_1 X1 X2) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k13_finseq_1 X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (m2_finseq_1 X2 X0)) \quad (7)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (v7_ordinal1 X1) \Rightarrow (\forall X2.\forall X3.(m2_finseq_1 X3 X2) \Rightarrow \\ & (\forall X4.(m2_finseq_1 X4 X2) \Rightarrow (\exists X5.(m2_finseq_1 X5 (\\ & k3_finseq_2 X2)) \wedge ((k3_finseq_1 X5 = X1) \wedge (\forall X6.(v7_ordinal1 \\ & X6) \Rightarrow ((X6 \in k2_finseq_1 X1) \Rightarrow (((X6 \in k2_finseq_1 X0) \Rightarrow (k1_matrprob \\ & X2 X5 X6 = X3)) \wedge ((\neg X6 \in k2_finseq_1 X0) \Rightarrow (k1_matrprob X2 X5 X6 = X4)))))))))) \end{aligned}$$