

t54_matrprob (TMYYLe-
QJq7rYCHkhPCw51ScspZ1MHhrd33m)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v3_relat_1 : \iota \Rightarrow o$ be given. Let $v1_matrix_1 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_matrix_1 : \iota \Rightarrow \iota$ 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 $k1_xboole_0 : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k4_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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. Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow ((X0 \neq k1_xboole_0) \Leftrightarrow (r1_xxreal_0 np_1 (k3_finseq_1 X0))) \quad (1)$$

Assume the following.

$$\forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_matrix_1 X1) \wedge (m2_finseq_1 X1 (k3_finseq_2 X0))) \Rightarrow ((\neg r1_xxreal_0 (k1_matrix_1 X1) k6_numbers) \Rightarrow ((k3_finseq_1 (k4_matrix_1 X0 X1) = k1_matrix_1 X1) \wedge (k1_matrix_1 (k4_matrix_1 X0 X1) = k3_finseq_1 X1)))) \quad (2)$$

Assume the following.

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

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (4)$$

Assume the following.

$$\forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_matrix_1 X1) \wedge (m2_finseq_1 X1 (k3_finseq_2 X0))) \Rightarrow ((\neg v3_relat_1 X1) \Leftrightarrow ((\neg r1_xxreal_0 (k3_finseq_1 X1) k6_numbers) \wedge (\neg r1_xxreal_0 (k1_matrix_1 X1) k6_numbers)))) \quad (5)$$

Assume the following.

$$v1_xboole_0 \ k1_xboole_0 \tag{6}$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 \ X1 \ X0) \Rightarrow ((v1_relat_1 \ X1) \wedge (v1_funct_1 \ X1) \wedge (v1_finseq_1 \ X1)) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 \ X0) \wedge ((v1_matrix_1 \ X1) \wedge (m1_finseq_1 \ X1 \ (k3_finseq_2 \ X0)))) \Rightarrow ((v1_matrix_1 \ (k4_matrix_1 \ X0 \ X1)) \wedge (m2_finseq_1 \ (k4_matrix_1 \ X0 \ X1) \ (k3_finseq_2 \ X0))) \tag{9}$$

Assume the following.

$$\forall X0.(\neg v1_xboole_0 \ X0) \Rightarrow (\forall X1.((v1_matrix_1 \ X1) \wedge (m2_finseq_1 \ X1 \ (k3_finseq_2 \ X0))) \Rightarrow ((v3_relat_1 \ X1) \Leftrightarrow ((k6_numbers = k3_finseq_1 \ X1) \vee (k6_numbers = k1_matrix_1 \ X1)))) \tag{10}$$

Assume the following.

$$\forall X0.((v1_xboole_0 \ X0) \wedge (v1_relat_1 \ X0)) \Rightarrow ((v1_relat_1 \ X0) \wedge (v3_relat_1 \ X0)) \tag{11}$$

Assume the following.

$$\forall X0.(v1_xboole_0 \ X0) \Rightarrow (v1_relat_1 \ X0) \tag{12}$$

Theorem 1

$$\forall X0.(\neg v1_xboole_0 \ X0) \Rightarrow (\forall X1.((\neg v3_relat_1 \ X1) \wedge ((v1_matrix_1 \ X1) \wedge (m2_finseq_1 \ X1 \ (k3_finseq_2 \ X0)))) \Rightarrow ((r1_xxreal_0 \ np_1 \ (k3_finseq_1 \ X1)) \wedge (r1_xxreal_0 \ np_1 \ (k1_matrix_1 \ X1))))$$