

l20_gobrd13 (TMYE m-
SaP9nXH2gCr2ee7pU8qLXLMBYFrA4J)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ 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 $k2_goboard2 : \iota \Rightarrow \iota$ be given. Let $k1_matrix_1 : \iota \Rightarrow \iota$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k17_euclid : \iota \Rightarrow \iota$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_matrix_1 : \iota \Rightarrow \iota$ be given. Let $k1_zfmisc.1 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge (m2_finseq_1 X0 (u1_struct_0 (\\ & \quad k15_euclid np_2)))) \Rightarrow (\forall X1.(m2_subset_1 X1 k1_numbers \\ & \quad k5_numbers) \Rightarrow (\forall X2.(m2_subset_1 X2 k1_numbers k5_numbers) \Rightarrow \\ & \quad (\neg (r1_xxreal_0 np_1 X1) \wedge ((r1_xxreal_0 X1 (k3_finseq_1 (k2_goboard2 \\ & \quad \quad X0))) \wedge (r1_xxreal_0 np_1 X2) \wedge ((r1_xxreal_0 X2 (k1_matrix_1 \\ & \quad \quad (k2_goboard2 X0))) \wedge (\forall X3.(m2_subset_1 X3 k1_numbers k5_numbers) \Rightarrow \\ & \quad \quad (\neg (X3 \in k4_finseq_1 X0) \wedge ((k4_tarski X1 X2 \in k2_matrix_1 (k2_goboard2 \\ & \quad \quad X0)) \wedge (k17_euclid (k7_partfun1 (u1_struct_0 (k15_euclid np_2)) \\ & \quad \quad X0 X3) = k17_euclid (k3_matrix_1 (u1_struct_0 (k15_euclid np_2)) \\ & \quad \quad \quad (k2_goboard2 X0) X1 X2)))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & \quad (m1_subset_1 X1 (k1_zfmisc.1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ & \quad \quad X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \tag{2}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{3}$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \tag{4}$$

Assume the following.

$$m1_subset_1 \ k5_numbers \ (k1_zfmisc_1 \ k1_numbers) \quad (5)$$

Assume the following.

$$\forall X0.(v1_xboole_0 \ X0) \Rightarrow (\forall X1.(m1_subset_1 \ X1 \ (k1_zfmisc_1 \ X0)) \Rightarrow (v1_xboole_0 \ X1)) \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 \ X0 \ k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & \quad X1 \ k5_numbers) \Rightarrow (\forall X2.((\neg v1_xboole_0 \ X2) \wedge (m2_finseq_1 \\ & \quad X2 \ (u1_struct_0 \ (k15_euclid \ np_2)))) \Rightarrow (\neg(r1_xxreal_0 \ np_1 \ X0) \wedge \\ & \quad ((r1_xxreal_0 \ X0 \ (k3_finseq_1 \ (k2_goboard2 \ X2))) \wedge (r1_xxreal_0 \\ & \quad np_1 \ X1) \wedge (r1_xxreal_0 \ X1 \ (k1_matrix_1 \ (k2_goboard2 \ X2))) \wedge \\ & \quad \forall X3.(m1_subset_1 \ X3 \ k5_numbers) \Rightarrow (\neg(X3 \in k4_finseq_1 \ X2) \wedge \\ & \quad (k17_euclid \ (k7_partfun1 \ (u1_struct_0 \ (k15_euclid \ np_2)) \ X2 \\ & \quad X3) = k17_euclid \ (k3_matrix_1 \ (u1_struct_0 \ (k15_euclid \ np_2)) \\ & \quad (k2_goboard2 \ X2) \ X0 \ X1)))))))))) \end{aligned}$$