

l161_seq_4

(TMdh3ab1zGgx9rqdsvo5RNKpJJrsazcMoS8)

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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 $v1_finset_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v4_xxreal_2 : \iota \Rightarrow o$ be given. Let $k4_seq_4 : \iota \Rightarrow \iota$ be given. Let $v3_xxreal_2 : \iota \Rightarrow o$ be given. Let $k5_seq_4 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0 : \iota \Rightarrow o. ((X0 \ k6_numbers) \wedge (\forall X1. (m2_subset_1 \\ & X1 \ k1_numbers \ k5_numbers) \Rightarrow ((X0 \ X1) \Rightarrow (X0 \ (k2_nat_1 \ X1 \ np_1)))))) \Rightarrow \\ & (\forall X1. (m2_subset_1 \ X1 \ k1_numbers \ k5_numbers) \Rightarrow (X0 \ X1)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m2_subset_1 \ X0 \ k1_numbers \ k5_numbers) \Rightarrow ((\forall X1. \\ & ((v1_finset_1 \ X1) \wedge (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ k1_numbers))) \Rightarrow \\ & ((k5_card_1 \ X1 = X0) \Rightarrow ((X1 = k1_xboole_0) \vee ((v4_xxreal_2 \ X1) \wedge ((\\ & k4_seq_4 \ X1 \in X1) \wedge ((v3_xxreal_2 \ X1) \wedge (k5_seq_4 \ X1 \in X1)))))) \Rightarrow (\\ & \forall X1. ((v1_finset_1 \ X1) \wedge (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ k1_numbers))) \Rightarrow \\ & ((k5_card_1 \ X1 = k2_nat_1 \ X0 \ np_1) \Rightarrow ((X1 = k1_xboole_0) \vee ((v4_xxreal_2 \\ & X1) \wedge ((k4_seq_4 \ X1 \in X1) \wedge ((v3_xxreal_2 \ X1) \wedge (k5_seq_4 \ X1 \in X1))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_finset_1 \ X0) \wedge (m1_subset_1 \ X0 \ (k1_zfmisc_1 \ k1_numbers))) \Rightarrow \\ & ((k5_card_1 \ X0 = k6_numbers) \Rightarrow ((X0 = k1_xboole_0) \vee ((v4_xxreal_2 \\ & X0) \wedge ((k4_seq_4 \ X0 \in X0) \wedge ((v3_xxreal_2 \ X0) \wedge (k5_seq_4 \ X0 \in X0)))))) \end{aligned} \quad (3)$$

Theorem 1

$$\begin{aligned} & \forall X0. (m2_subset_1 \ X0 \ k1_numbers \ k5_numbers) \Rightarrow (\forall X1. \\ & ((v1_finset_1 \ X1) \wedge (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ k1_numbers))) \Rightarrow \\ & ((k5_card_1 \ X1 = X0) \Rightarrow ((X1 = k1_xboole_0) \vee ((v4_xxreal_2 \ X1) \wedge ((\\ & k4_seq_4 \ X1 \in X1) \wedge ((v3_xxreal_2 \ X1) \wedge (k5_seq_4 \ X1 \in X1)))))) \end{aligned}$$