

t15_entropy1
(TMK8uHGQj4suogSSu3FsUZPPCkkoYrjpfFa)

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Let $v1_matrprob : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $r1_entropy1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_partfun3 : \iota \Rightarrow o$ be given. Let $k18_rvsum_1 : \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m2_finseq_1 X0 k1_numbers) \Rightarrow ((v4_partfun3 X0) \Rightarrow (\forall X1. \\ (m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow (((X1 \in k4_finseq_1 X0) \wedge \\ (k1_seq_1 X0 X1 = k18_rvsum_1 X0)) \Rightarrow (r1_entropy1 X0 X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(m2_finseq_1 X0 k1_numbers) \Rightarrow ((v1_matrprob X0) \Leftrightarrow ((\\ \forall X1.(m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow ((X1 \in k4_finseq_1 \\ X0) \Rightarrow (r1_xxreal_0 k6_numbers (k1_seq_1 X0 X1)))) \wedge (k18_rvsum_1 \\ X0 = np_1))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.(m1_finseq_1 X0 k1_numbers) \Rightarrow ((v1_matrprob X0) \Rightarrow ((\\ \neg v1_xboole_0 X0) \wedge (v4_partfun3 X0))) \quad (4)$$

Theorem 1

$$\begin{aligned} \forall X0. ((v1_matrprob X0) \wedge (m2_finseq_1 X0 k1_numbers)) \Rightarrow (\\ \forall X1.(m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow (((X1 \in k4_finseq_1 \\ X0) \wedge (k1_seq_1 X0 X1 = np_1)) \Rightarrow (r1_entropy1 X0 X1))) \end{aligned}$$