

l10_ndiff_5

(TMN3UWqchGuZbfmPC4d3PXWZzS3EzxPh12p)

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Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $v1_prvect_2 : \iota \Rightarrow o$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k4_prvect_2 : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v2_relat_1 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_prvect_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow (k4_finseq_1 X0 = k9_xtuple_0 X0) \quad (1)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge ((\neg v1_xboole_0 X0) \wedge ((v1_finseq_1 X0) \wedge (v1_prvect_2 X0))))) \Rightarrow ((v1_relat_1 (k4_prvect_2 X0)) \wedge ((v2_relat_1 (k4_prvect_2 X0)) \wedge ((v1_funct_1 (k4_prvect_2 X0)) \wedge ((\neg v1_xboole_0 (k4_prvect_2 X0)) \wedge (v1_finseq_1 (k4_prvect_2 X0)))))$$

(2)

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow (m2_subset_1 (k3_finseq_1 X0) k1_numbers k5_numbers) \quad (3)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge ((\neg v1_xboole_0 X0) \wedge ((v1_finseq_1 X0) \wedge (v1_prvect_2 X0))))) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((v2_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge ((\neg v1_xboole_0 X1) \wedge (v1_finseq_1 X1))))) \Rightarrow ((X1 = k4_prvect_2 X0) \Leftrightarrow ((k3_finseq_1 X1 = k3_finseq_1 X0) \wedge (\forall X2.(m2_subset_1 X2 k5_numbers (k4_finseq_1 X0)) \Rightarrow (k1_funct_1 X1 X2 = u1_struct_0 (k3_prvect_2 X0 X2)))))$$

(4)

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ & (\forall X1.(m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow ((X1 = k3_finseq_1 \\ & X0) \Leftrightarrow (k2_finseq_1 X1 = k9_xtuple_0 X0))) \end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_relat_1 X0) \wedge ((v1_funct_1 \\ & X0) \wedge ((v1_finseq_1 X0) \wedge (v1_prvect_2 X0))))) \Rightarrow (k4_finseq_1 (k4_prvect_2 \\ & X0) = k4_finseq_1 X0) \end{aligned}$$