

t12_prvect_1 (TMWnFyGs- MafwZuY4P3J6ssfqrKxLMVFh8uz)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v2_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $m2_prvect_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ 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 $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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 $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ & X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow (k4_finseq_1 X0 = k9_xtuple_0 X0) \quad (2)$$

Assume the following.

$$\forall X0. ((\neg v1_xboole_0 X0) \wedge (v1_relat_1 X0)) \Rightarrow (\neg v1_xboole_0 (k9_xtuple_0 X0)) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v2_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge \\ & (\neg v1_xboole_0 X0)))) \Rightarrow (\forall X1. (m2_prvect_1 X1 X0) \Rightarrow ((v1_relat_1 \\ & X1) \wedge (v1_funct_1 X1))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow (m1_subset_1 (k4_finseq_1 X0) (k1_zfmisc_1 k5_numbers)) \quad (5)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow (m2_subset_1 (k3_finseq_1 X0) k1_numbers k5_numbers) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v2_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge \\ & (\neg v1_xboole_0 X0)))) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge (v1_funct_1 \\ & X1)) \Rightarrow ((m2_prvect_1 X1 X0) \Leftrightarrow ((k9_xtuple_0 X1 = k9_xtuple_0 X0) \wedge \\ & (\forall X2.(m1_subset_1 X2 (k9_xtuple_0 X0)) \Rightarrow ((v1_funct_1 (\\ & k1_funct_1 X1 X2)) \wedge ((v1_funct_2 (k1_funct_1 X1 X2) (k1_funct_1 \\ & X0 X2) (k1_funct_1 X0 X2)) \wedge (m1_subset_1 (k1_funct_1 X1 X2) (k1_zfmisc_1 \\ & (k2_zfmisc_1 (k1_funct_1 X0 X2) (k1_funct_1 X0 X2)))))))))) \quad (7) \end{aligned}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ & (\forall X1.(m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow ((X1 = k3_finseq_1 \\ & X0) \Leftrightarrow (k2_finseq_1 X1 = k9_xtuple_0 X0))) \quad (8) \end{aligned}$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (v1_xboole_0 X1)) \quad (9)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v2_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge \\ & ((\neg v1_xboole_0 X0) \wedge (v1_finseq_1 X0)))))) \Rightarrow (\forall X1.((v1_relat_1 \\ & X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \Rightarrow ((m2_prvect_1 X1 X0) \Leftrightarrow \\ & ((k3_finseq_1 X1 = k3_finseq_1 X0) \wedge (\forall X2.(m2_subset_1 X2 \\ & k5_numbers (k4_finseq_1 X0)) \Rightarrow ((v1_funct_1 (k1_funct_1 X1 X2)) \wedge \\ & ((v1_funct_2 (k1_funct_1 X1 X2) (k1_funct_1 X0 X2) (k1_funct_1 \\ & X0 X2)) \wedge (m1_subset_1 (k1_funct_1 X1 X2) (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k1_funct_1 X0 X2) (k1_funct_1 X0 X2)))))))))) \quad (10) \end{aligned}$$