

t31_compos_2 (TMZZWdSRXg- TUCjK8JEE8z3Gzov2Vo7TxJpH)

October 27, 2020

Let $v1_amistd_4 : \iota \Rightarrow o$ be given. Let $l1_compos_1 : \iota \Rightarrow o$ be given. Let $v6_compos_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k62_valued_1 : \iota \Rightarrow \iota$ be given. Let $k3_compos_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_afinsq_1 : \iota \Rightarrow o$ be given. Let $v3_compos_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_compos_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $np_3 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_amistd_4 X0) \wedge (l1_compos_1 X0)) \Rightarrow (\forall X1. \\ & ((\neg v1_xboole_0 X1) \wedge (v1_relat_1 X1) \wedge (v4_relat_1 X1 k5_numbers) \wedge \\ & ((v5_relat_1 X1 (u1_compos_1 X0)) \wedge ((v1_funct_1 X1) \wedge ((v1_finset_1 \\ & X1) \wedge ((v1_afinsq_1 X1) \wedge ((v3_compos_1 X1 X0) \wedge (v4_compos_1 X1 X0)))))) \Rightarrow \\ & (k62_valued_1 X1 = k6_xcmplx_0 (k5_card_1 X1) np_1)) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_amistd_4 X0) \wedge (l1_compos_1 X0)) \Rightarrow (\forall X1. \\ & ((v6_compos_0 X1 (u1_compos_1 X0)) \wedge (m1_subset_1 X1 (u1_compos_1 \\ & X0))) \Rightarrow (\forall X2.((v6_compos_0 X2 (u1_compos_1 X0)) \wedge (m1_subset_1 \\ & X2 (u1_compos_1 X0))) \Rightarrow (k5_card_1 (k3_compos_2 X0 X1 X2) = np_3))) \end{aligned} \tag{2}$$

Assume the following.

$$k6_xcmplx_0 np_3 np_1 = np_2 \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((v1_amistd_4 X0) \wedge (l1_compos_1 \\
& X0)) \wedge (((v6_compos_0 X1 (u1_compos_1 X0)) \wedge (m1_subset_1 X1 (u1_compos_1 \\
& X0))) \wedge ((v6_compos_0 X2 (u1_compos_1 X0)) \wedge (m1_subset_1 X2 (u1_compos_1 \\
& X0)))))) \Rightarrow ((\neg v1_xboole_0 (k3_compos_2 X0 X1 X2)) \wedge ((v1_relat_1 \\
& (k3_compos_2 X0 X1 X2)) \wedge ((v4_relat_1 (k3_compos_2 X0 X1 X2) k5_numbers) \wedge \\
& ((v5_relat_1 (k3_compos_2 X0 X1 X2) (u1_compos_1 X0)) \wedge ((v1_funct_1 \\
& (k3_compos_2 X0 X1 X2)) \wedge ((v1_finset_1 (k3_compos_2 X0 X1 X2)) \wedge \\
& ((v1_afinsq_1 (k3_compos_2 X0 X1 X2)) \wedge ((v3_compos_1 (k3_compos_2 \\
& X0 X1 X2) X0) \wedge (v4_compos_1 (k3_compos_2 X0 X1 X2) X0))))))))) \\
& \hspace{15em} (4)
\end{aligned}$$

Theorem 1

$$\begin{aligned}
& \forall X0. ((v1_amistd_4 X0) \wedge (l1_compos_1 X0)) \Rightarrow (\forall X1. \\
& ((v6_compos_0 X1 (u1_compos_1 X0)) \wedge (m1_subset_1 X1 (u1_compos_1 \\
& X0))) \Rightarrow (\forall X2. ((v6_compos_0 X2 (u1_compos_1 X0)) \wedge (m1_subset_1 \\
& X2 (u1_compos_1 X0))) \Rightarrow (k62_valued_1 (k3_compos_2 X0 X1 X2) = np_2)))
\end{aligned}$$