

t30_compos_2 (TMWTmWe- MAVRgcY7ksvuJksDHKQ4LqvQEXSS)

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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 $k11_compos_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ 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. Assume the following.

$$\forall X0.(l1_compos_1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_compos_1 X0)) \Rightarrow (k5_card_1 (k11_compos_1 X0 X1) = np_2)) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_amistd_4 X0) \wedge (l1_compos_1 X0)) \Rightarrow (\forall X1. \\ & ((\neg v1_xboole_0 X1) \wedge ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 k5_numbers) \wedge \\ & ((v5_relat_1 X1 (u1_compos_1 X0)) \wedge ((v1_funct_1 X1) \wedge ((v1_finset_1 \\ & X1) \wedge ((v1_afinsq_1 X1) \wedge ((v3_compos_1 X1 X0) \wedge (v4_compos_1 X1 X0)))))) \Rightarrow \\ & (k62_valued_1 X1 = k6_xcmplx_0 (k5_card_1 X1) np_1)) \end{aligned} \quad (2)$$

Assume the following.

$$k6_xcmplx_0 np_2 np_1 = np_1 \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((v1_amistd_4 X0) \wedge (l1_compos_1 X0)) \wedge \\ & ((v6_compos_0 X1 (u1_compos_1 X0)) \wedge (m1_subset_1 X1 (u1_compos_1 \\ & X0)))) \Rightarrow ((v1_relat_1 (k11_compos_1 X0 X1)) \wedge ((v4_relat_1 (k11_compos_1 \\ & X0 X1) k5_numbers) \wedge ((v5_relat_1 (k11_compos_1 X0 X1) (u1_compos_1 \\ & X0)) \wedge ((v1_funct_1 (k11_compos_1 X0 X1)) \wedge ((v1_finset_1 (k11_compos_1 \\ & X0 X1)) \wedge ((v3_compos_1 (k11_compos_1 X0 X1) X0) \wedge (v4_compos_1 (\\ & k11_compos_1 X0 X1) X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((l1_compos_1 X0) \wedge (m1_subset_1 X1 (u1_compos_1 \\ X0))) \Rightarrow ((\neg v1_xboole_0 (k11_compos_1 X0 X1)) \wedge ((v1_relat_1 (k11_compos_1 \\ X0 X1)) \wedge ((v4_relat_1 (k11_compos_1 X0 X1) k5_numbers) \wedge ((v5_relat_1 \\ (k11_compos_1 X0 X1) (u1_compos_1 X0)) \wedge ((v1_funct_1 (k11_compos_1 \\ X0 X1)) \wedge ((v1_finset_1 (k11_compos_1 X0 X1)) \wedge (v1_afinsq_1 (k11_compos_1 \\ X0 X1)))))))))) \end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned} \forall X0. ((v1_amistd_4 X0) \wedge (l1_compos_1 X0)) \Rightarrow (\forall X1. \\ ((v6_compos_0 X1 (u1_compos_1 X0)) \wedge (m1_subset_1 X1 (u1_compos_1 \\ X0))) \Rightarrow (k62_valued_1 (k11_compos_1 X0 X1) = np_1)) \end{aligned}$$