

t28_weddwitt (TMFBfEVQ- drkY5PuzJyj2M7x5LWqogmtGnBR)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v6_struct_0 : \iota \Rightarrow o$ be given. Let $v8_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v33_algstr_0 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v4_vectsp_1 : \iota \Rightarrow o$ be given. Let $v5_vectsp_1 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Let $k5_weddwitt : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k4_weddwitt : \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v36_algstr_0 : \iota \Rightarrow o$ be given. Let $v5_group_1 : \iota \Rightarrow o$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l5_algstr_0 : \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_algstr_0 : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (1)$$

Assume the following.

$$\forall X0. (v1_finset_1 X0) \Rightarrow (\forall X1. (v1_finset_1 X1) \Rightarrow ((r1_tarski X0 X1) \Rightarrow (r1_xxreal_0 (k5_card_1 X0) (k5_card_1 X1)))) \quad (2)$$

Assume the following.

$$\forall X0. (v1_xxreal_0 X0) \Rightarrow (\forall X1. (v1_xxreal_0 X1) \Rightarrow (\forall X2. (v1_xxreal_0 X2) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X2)) \Rightarrow (r1_xxreal_0 X0 X2)))) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\ X0) \wedge ((v33_algstr_0 X0) \wedge ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge \\ ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 \\ X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 \\ (u1_struct_0 X0) \Rightarrow (r1_tarski (u1_struct_0 (k4_weddwitt X0)) \\ (u1_struct_0 (k5_weddwitt X0 X1)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v8_struct_0 \\ X0) \wedge ((v13_algstr_0 X0) \wedge ((v33_algstr_0 X0) \wedge ((v2_rlvect_1 X0) \wedge \\ ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge ((v4_vectsp_1 \\ X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow (\neg r1_xxreal_0 \\ (k5_card_1 (u1_struct_0 (k4_weddwitt X0))) np_1) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (6)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (7)$$

Assume the following.

$$\forall X0.((v8_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (v1_finset_1 \\ (u1_struct_0 X0)) \quad (8)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge \\ ((v8_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v33_algstr_0 X0) \wedge ((\\ v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_group_1 \\ X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))))) \wedge \\ (m1_subset_1 X1 (u1_struct_0 X0))) \Rightarrow ((\neg v2_struct_0 (k5_weddwitt \\ X0 X1)) \wedge ((\neg v6_struct_0 (k5_weddwitt X0 X1)) \wedge ((v8_struct_0 (k5_weddwitt \\ X0 X1)) \wedge ((v13_algstr_0 (k5_weddwitt X0 X1)) \wedge ((v33_algstr_0 (\\ k5_weddwitt X0 X1)) \wedge ((v36_algstr_0 (k5_weddwitt X0 X1)) \wedge ((v2_rlvect_1 \\ (k5_weddwitt X0 X1)) \wedge ((v3_rlvect_1 (k5_weddwitt X0 X1)) \wedge ((v4_rlvect_1 \\ (k5_weddwitt X0 X1)) \wedge ((v3_group_1 (k5_weddwitt X0 X1)) \wedge ((v4_vectsp_1 \\ (k5_weddwitt X0 X1)) \wedge (v5_vectsp_1 (k5_weddwitt X0 X1)))))))))) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v8_struct_0 \\ &X0) \wedge ((v13_algstr_0 X0) \wedge ((v33_algstr_0 X0) \wedge ((v2_rlvect_1 X0) \wedge \\ &((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge ((v4_vectsp_1 \\ &X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow ((\neg v2_struct_0 \\ &(k4_weddwitt X0)) \wedge ((\neg v6_struct_0 (k4_weddwitt X0)) \wedge ((v8_struct_0 \\ &(k4_weddwitt X0)) \wedge ((v13_algstr_0 (k4_weddwitt X0)) \wedge ((v33_algstr_0 \\ &(k4_weddwitt X0)) \wedge ((v36_algstr_0 (k4_weddwitt X0)) \wedge ((v2_rlvect_1 \\ &(k4_weddwitt X0)) \wedge ((v3_rlvect_1 (k4_weddwitt X0)) \wedge ((v4_rlvect_1 \\ &(k4_weddwitt X0)) \wedge ((v3_group_1 (k4_weddwitt X0)) \wedge ((v5_group_1 \\ &(k4_weddwitt X0)) \wedge ((v4_vectsp_1 (k4_weddwitt X0)) \wedge (v5_vectsp_1 \\ &(k4_weddwitt X0))))))))))))) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0. (l6_algstr_0 X0) \Rightarrow ((l2_algstr_0 X0) \wedge (l5_algstr_0 X0)) \quad (12)$$

Assume the following.

$$\forall X0. (l2_algstr_0 X0) \Rightarrow ((l2_struct_0 X0) \wedge (l1_algstr_0 X0)) \quad (13)$$

Assume the following.

$$\forall X0. (l1_algstr_0 X0) \Rightarrow (l1_struct_0 X0) \quad (14)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (&((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge \\ &((v13_algstr_0 X0) \wedge ((v33_algstr_0 X0) \wedge ((v2_rlvect_1 X0) \wedge ((\\ &v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge ((v4_vectsp_1 \\ &X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))))) \wedge (m1_subset_1 \\ &X1 (u1_struct_0 X0))) \Rightarrow ((\neg v2_struct_0 (k5_weddwitt X0 X1)) \wedge ((\\ &\neg v6_struct_0 (k5_weddwitt X0 X1)) \wedge ((v13_algstr_0 (k5_weddwitt \\ &X0 X1)) \wedge ((v33_algstr_0 (k5_weddwitt X0 X1)) \wedge ((v36_algstr_0 (\\ &k5_weddwitt X0 X1)) \wedge ((v2_rlvect_1 (k5_weddwitt X0 X1)) \wedge ((v3_rlvect_1 \\ &(k5_weddwitt X0 X1)) \wedge ((v4_rlvect_1 (k5_weddwitt X0 X1)) \wedge ((v3_group_1 \\ &(k5_weddwitt X0 X1)) \wedge ((v4_vectsp_1 (k5_weddwitt X0 X1)) \wedge ((v5_vectsp_1 \\ &(k5_weddwitt X0 X1)) \wedge (l6_algstr_0 (k5_weddwitt X0 X1))))))))))))) \end{aligned} \quad (15)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (16)$$

Assume the following.

$$\forall X0. (v1_finset_1 X0) \Rightarrow (m1_subset_1 (k5_card_1 X0) k4_ordinal1) \quad (17)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\ X0) \wedge ((v33_algstr_0 X0) \wedge ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge \\ ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 \\ X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow ((\neg v2_struct_0 (k4_weddwitt \\ X0) \wedge ((\neg v6_struct_0 (k4_weddwitt X0) \wedge ((v13_algstr_0 (k4_weddwitt \\ X0) \wedge ((v33_algstr_0 (k4_weddwitt X0) \wedge ((v36_algstr_0 (k4_weddwitt \\ X0) \wedge ((v2_rlvect_1 (k4_weddwitt X0) \wedge ((v3_rlvect_1 (k4_weddwitt \\ X0) \wedge ((v4_rlvect_1 (k4_weddwitt X0) \wedge ((v3_group_1 (k4_weddwitt \\ X0) \wedge ((v5_group_1 (k4_weddwitt X0) \wedge ((v4_vectsp_1 (k4_weddwitt \\ X0) \wedge ((v5_vectsp_1 (k4_weddwitt X0) \wedge (l6_algstr_0 (k4_weddwitt \\ X0)))))))))))))))))) \end{aligned} \quad (18)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \Rightarrow ((m1_subset_1 X1 X0) \Leftrightarrow \\ (X1 \in X0))) \wedge ((v1_xboole_0 X0) \Rightarrow ((m1_subset_1 X1 X0) \Leftrightarrow (v1_xboole_0 \\ X1))) \end{aligned} \quad (19)$$

Assume the following.

$$\forall X0. (v1_xreal_0 X0) \Rightarrow (v1_xxreal_0 X0) \quad (20)$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (21)$$

Theorem 1

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v8_struct_0 \\ X0) \wedge ((v13_algstr_0 X0) \wedge ((v33_algstr_0 X0) \wedge ((v2_rlvect_1 X0) \wedge \\ ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge ((v4_vectsp_1 \\ X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow (\forall X1. \\ (m1_subset_1 X1 (u1_struct_0 X0) \Rightarrow (\neg r1_xxreal_0 (k5_card_1 (\\ u1_struct_0 (k5_weddwitt X0 X1))) np_1)) \end{aligned}$$