

t34_afinsq_2
(TMYGhibesfFcKtf7doFszu5ercXt98m516c)

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Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $r1_afinsq_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k1_recdef_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_afinsq_2 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $v1_xcplx_0 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_card_1 : \iota \Rightarrow o$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\neg(r1_xxreal_0 X0 X1) \wedge (\neg v2_xxreal_0 X1) \wedge (v2_xxreal_0 X0)))) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.((v1_finset_1 X1) \wedge (v6_membered X1)) \Rightarrow (\forall X2.((v1_finset_1 X2) \wedge (v6_membered X2)) \Rightarrow ((r1_afinsq_2 X1 X2) \Rightarrow ((r1_xxreal_0 (k1_afinsq_1 (k4_afinsq_2 X1)) X0) \vee (k1_recdef_1 (k4_afinsq_2 X1) X0 = k1_recdef_1 (k4_afinsq_2 (k2_xboole_0 X1 X2)) X0)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.((v1_finset_1 X0) \wedge (v6_membered X0)) \Rightarrow (k1_afinsq_1 (k4_afinsq_2 X0) = k5_card_1 X0) \quad (4)$$

Assume the following.

$$m1_subset_1 k1_xboole_0 k4_ordinal1 \quad (5)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (6)$$

Assume the following.

$$\forall X0.(v1_finset_1 X0) \Rightarrow (k5_card_1 X0 = k1_card_1 X0) \quad (7)$$

Assume the following.

$$\exists X0.(v1_xboole_0 X0) \wedge ((v1_xcmplx_0 X0) \wedge ((v1_xxreal_0 X0) \wedge (v1_xreal_0 X0))) \quad (8)$$

Assume the following.

$$\forall X0.(\neg v1_xboole_0 X0) \Rightarrow ((\neg v1_xboole_0 (k1_card_1 X0)) \wedge (v1_card_1 (k1_card_1 X0))) \quad (9)$$

Assume the following.

$$\forall X0.(v1_finset_1 X0) \Rightarrow (m1_subset_1 (k5_card_1 X0) k4_ordinal1) \quad (10)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (11)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_xxreal_0 X0) \wedge (\neg v3_xxreal_0 X0))) \Rightarrow ((v1_xxreal_0 X0) \wedge (v2_xxreal_0 X0)) \quad (12)$$

Assume the following.

$$\forall X0.((v1_xxreal_0 X0) \wedge (v2_xxreal_0 X0)) \Rightarrow ((\neg v1_xboole_0 X0) \wedge ((v1_xxreal_0 X0) \wedge (\neg v3_xxreal_0 X0))) \quad (13)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow ((v7_ordinal1 X0) \wedge (\neg v3_xxreal_0 X0)) \quad (14)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (v1_xxreal_0 X0) \quad (15)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (v1_xreal_0 X0) \quad (16)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_finset_1 X0) \wedge (v6_membered X0)) \Rightarrow (\forall X1. \\ & ((v1_finset_1 X1) \wedge (v6_membered X1)) \Rightarrow ((r1_afinsq_2 X0 X1) \Rightarrow ((\\ & X0 = k1_xboole_0) \vee (k1_recdef_1 (k4_afinsq_2 X0) k6_numbers = k1_recdef_1 \\ & (k4_afinsq_2 (k2_xboole_0 X0 X1)) k6_numbers)))) \end{aligned}$$