

t1_euclid_5 (TMQbfKiMK- WYFMvUHrELortyPpfK9VXvH2C2)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k3_finseq_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_euclid : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v3_card_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k11_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $m1_finseq_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (u1_struct_0 (k15_euclid X0) = k1_euclid X0) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v3_card_1 X1 np_3) \wedge \\ (m2_finseq_1 X1 X0)) \Rightarrow (\exists X2.(m1_subset_1 X2 X0) \wedge (\exists X3. \\ (m1_subset_1 X3 X0) \wedge (\exists X4.(m1_subset_1 X4 X0) \wedge (X1 = k11_finseq_1 \\ X2 X3 X4)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} ((v2_xxreal_0 np_3) \wedge (m2_subset_1 np_3 k1_numbers k5_numbers)) \wedge \\ ((m1_subset_1 np_3 k5_numbers) \wedge (m1_subset_1 np_3 k1_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_2 X1 X0) \Rightarrow (\forall X2.(m2_finseq_2 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (4)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((\neg v1_xboole_0 X0)\wedge \\ & ((m1_subset_1 X1 X0)\wedge((m1_subset_1 X2 X0)\wedge(m1_subset_1 X3 X0))))\Rightarrow \\ & (k3_finseq_4 X0 X1 X2 X3 = k11_finseq_1 X1 X2 X3) \end{aligned} \quad (6)$$

Assume the following.

$$v6_membered k4_ordinal1 \quad (7)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(m1_finseq_2 X1 X0)\Rightarrow(\forall X2.(m2_finseq_2 \\ & X2 X0 X1)\Rightarrow(m2_finseq_1 X2 X0)) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0)\Rightarrow(m1_finseq_2 (k1_euclid X0) k1_numbers) \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ & (k15_euclid X0)))\Rightarrow(v3_card_1 X1 X0)) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v6_membered X0)\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow \\ & (v7_ordinal1 X1)) \end{aligned} \quad (12)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_3)))\Rightarrow \\ & (\exists X1.(m1_subset_1 X1 k1_numbers)\wedge(\exists X2.(m1_subset_1 \\ & X2 k1_numbers)\wedge(\exists X3.(m1_subset_1 X3 k1_numbers)\wedge(X0 = \\ & k3_finseq_4 k1_numbers X1 X2 X3)))) \end{aligned}$$